



**CONESTOGA-ROVERS
& ASSOCIATES**

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July 9, 2010

Reference No. 056393

Mr. Michael Berkoff
Remedial Project Manager
U.S. Environmental Protection Agency - Region V
Superfund Division, Remedial Response Section #2
77 West Jackson Boulevard (SR - 6J)
Chicago, Illinois 60604 - 3590

Dear Mr. Berkoff:

Re: Remedial Action Monthly Progress Report No. 4 - June 2010
12th Street Landfill Operable Unit No. 4
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Allegan and Kalamazoo County

As required by Task 4, Progress Reports in the Statement of Work for the Remedial Design and Remedial Action at the 12th Street Landfill Operable Unit No. 4, please find attached the Progress Report No. 4 for the period of June 1, 2010 through June 30, 2010.

Should you have any questions or require any additional information, please do not hesitate to contact the undersigned.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Gregory A. Carli, P. E.

AS/cs/21

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Remedial Action Progress Report No. 4
June 1, 2010 to June 30, 2010

Remedial Design and Remedial Action
12th Street Landfill, Operable Unit No. 4
Otsego, Michigan

This progress report is being submitted to the United States Environmental Protection Agency (U.S. EPA) in accordance with Task 4: Progress Reports and the Summary of Major Deliverables/Schedule contained in the Statement of Work for the Remedial Design and Remedial Action pursuant to the terms of the Consent Decree for the Design and Implementation of Certain Response Action at Operable Unit No. 4 and the Plainwell, Inc. Mill Property (Site) of the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site (Consent Decree) which became effective February 22, 2005.

1. WORK PERFORMED

- Major Site activities (i.e., excavation, grading, compacting, backfilling, etc.) were halted for a total of 12 working days, during the June 2010 reporting period, due to inclement weather conditions. The Site received approximately 10.2 inches of rain during the month of June. The large quantity of rain saturated Site conditions such that all major activities were stopped for a period of time from June 9 through June 25, 2010. During this period of time, CRA conducted inspections after each rain event to the soil erosion and sedimentation controls (i.e., silt fence), making repairs when required, and conducted minor tilling of the placed excavated materials, using a piece of agricultural equipment, to promote drying.
- On June 8, 2010, CRA submitted design layout and photo of the Site information signs that have been posted at the entrances to the Site.
- On June 10, 2010, Progress Report No. 3 was submitted to U.S. EPA. Included with the progress report were the initial and supplemental Proctor and compaction test results, and analytical results for the contents of the investigative derived liquid waste.
- On June 14, 2010, CRA submitted analytical results and an explanation for the grey pieces of material found within the peat layer, during excavation activities in the northwest on-property wetlands. Based, on the analytical result the material was determined to be related to the paper residuals on-Site and were therefore excavated and placed within the landfill. In order to ensure that all paper residuals and related grey pieces were removed from the wetlands, CRA conducted additional excavations in the areas where the grey pieces were first observed.
- On June 15, 2010, CRA submitted the Verification Sampling Plan to U.S. EPA. Based on discussions during the weekly conference call, a revised Verification Sampling Plan was submitted on June 22, 2010.

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12th Street Landfill, Operable Unit No. 4
Otsego, Michigan

- On June 17, 2010, Weyerhaeuser and CRA received U.S. EPA approval of the revised Multi-area Quality Assurance Project Plan (QAPP).
- The following field activities were conducted during the June 2010 reporting period:
 - Site security (24 hours per day, 7 days per week).
 - Loading and off-Site removal of tree stump and wood chip debris.
 - On-going verification surveying of landfill and surrounding areas.
 - Excavation, placement, grading, and tilling of paper residuals from the on-property wetland areas on to the landfill surface.
 - Setup, testing, and commissioning, including an inspection conducted by the City of Plainwell, of the on-Site temporary water treatment system.
 - The setup of dewatering equipment along the base of the landfill in preparation of backfilling the on-property wetland areas.
 - Delivery and stockpiling of general fill for the backfilling of the excavated on-property wetland areas.
 - Operation of the temporary water treatment system and dewatering of the excavated on-property wetland areas located at the northeast corner of the Site.
 - Collection of water samples from the effluent storage tank of the temporary water treatment system for chemical analysis. Based on analytical results, approximately 85,580 gallons of treated water was loaded and transported off-Site by a licensed non-hazardous waste hauler for discharge to the City of Plainwell Water Renewal Plant. Analytical results for water treated and discharged during the reporting period are included as Attachment A.
 - Intermittent tilling on the northeast portion of the landfill, of the previously placed excavated materials to promote drying.
 - Backfilling of the northeast on-property wetland areas.
 - Excavation of paper residuals from the Michigan Department of Natural Resources and Environment (MDNRE), including the collection of nine verification soil sample for PCB analysis. The excavated area was surveyed to verify the total surface area.
 - Rough grading of the north, northeastern and southeastern side slopes of the landfill.
 - Regular compaction testing of the placed materials on the landfill surface. Compaction results for tests conducted during the reporting period are presented in Attachment B.
 - Delivery and inventory verification of the geocomposite and liner materials.

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June 1, 2010 to June 30, 2010

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2. DATA RECEIVED

- Analytical results have been received for the first five batches of treated effluent from the Water Treatment System. A total of 85,580 gallons has been treated and shipped off-Site to the City of Plainwell Wastewater Treatment Plant. Based on a review of the analytical data, all results have met the City of Plainwell's discharge criteria and were non-detect for polychlorinated biphenyls (PCBs). The analytical results are presented in Attachment A.
- Two compaction tests were conducted on the landfill surface or the placed materials. Compaction results meet the 90 percent compaction criteria and are provided as Attachment B.
- Analytical results for the grey pieces of material found during the excavation of the northwest on-property wetlands determined that the grey pieces of material were related to the paper residuals on-Site. The analytical results identified PCBs within the grey pieces at a concentration of 6.8 mg/kg. Therefore, CRA conducted additional excavations in this wetland area to remove the observed grey pieces. The analytical results are presented in Attachment C.

3. MODIFICATIONS TO WORK PLANS OR OTHER SCHEDULES PROPOSED TO, OR APPROVED BY, THE U.S. EPA

- No modification to work plans or the project schedule has been made during this reporting period. It should be noted that although 12 working days have been lost due to inclement weather conditions, CRA remains relatively on schedule because the project was approximately one to two weeks ahead of schedule during the May 2010 reporting period. Section 4.0 discusses the lost time and the potential to conduct six day work weeks during the month of July to ensure CRA remains on schedule.

4. PROBLEMS ENCOUNTERED AND PLANNED RESOLUTION

- As previously noted above, work at the Site was stopped due to inclement weather conditions for a total of 12 days during the June 2010 reporting period. As a result of this lost time, CRA Services will determine the requirement to work six days per week and

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Otsego, Michigan

conduct Site work on Saturdays during the month of July. However, CRA Services remains relatively on schedule and anticipates that only 3 to 4 six day work weeks may be required.

5. WORK ANTICIPATED DURING THE NEXT REPORTING PERIOD

- In accordance with the RAWP, the following field activities are scheduled to start during the July 2010 reporting period:
 - Continue relocating waste residuals from Wetland Area on Site
 - Continue dewatering excavated areas prior to backfilling
 - Continue operation of the temporary water treatment system
 - Backfill wetland area on Site
 - Construct temporary access road to access the Asphalt Plant Property, as necessary
 - Begin relocating waste residuals from the Asphalt Plant Property
 - Commence Verification Sampling Program on the excavated areas of the Asphalt Plant Property
 - Receive and verify verification soil sampling results from the MDNRE and Asphalt Plant property

6. ANTICIPATED DEVELOPMENT WITH WORK DURING THE NEXT PERIOD

- Continue to hold weekly conference calls and/or meetings between U.S. EPA and Project Technical Team
- A meeting has been tentatively scheduled for September 8, 2010, to discuss the start of the liner installation

7. OTHER RELEVANT INFORMATION

- It should be noted that conversations with U.S. EPA and CRA have been conducted regarding a proposed approach to addressing the potential perched leachate within the landfill, instead of conducting test pits in areas of the landfill where construction debris is anticipated.

ATTACHMENT A

TEMPORARY WATER TREATMENT SYSTEM
EFFLUENT ANALYTICAL RESULTS - JUNE 2010



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CRA Services
14496 Sheldon Rd., Suite 200
Plymouth, MI 48170

Attn : Mr. Paul Wiseman

KAR Project No. : 102585
Date Reported : 07/07/10
Date Activated : 07/01/10
Date Due : 07/07/10
Date Validated : 07/07/10

Project

**Description : Analysis of one aqueous sample from 12th St. Landfill
(#56913-60).**

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received. If a sample was identified as drinking water under the Safe Drinking Water Act, the "Comments" column may also contain federal drinking water information including MCL which is the Maximum Contaminant Level set by USEPA. Values enclosed in brackets ([]) are Secondary MCL's and are non-enforceable guidelines for aesthetic quality.

If you wish to contact us about this work please mention KAR Project No. 102585. To arrange additional sampling or testing please contact our Client Services Department. If you have any questions regarding quality assurance please contact us.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

David R. Alkema
Laboratory Manager

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LABORATORY DETAIL REPORT

Client: CRA Services

Attest: 
David R. Alkema, Lab Manager

KAR Project No. : 102585

Date Reported: 07/07/10

Project

Description: Analysis of one aqueous sample from 12th St. Landfill (#56913-60).

Sample ID : "WW-056913-070110-DN-005"

Sampled By : DN of CRA Services

Date Received : 07/01/10

Sample Date : 07/01/10

Sample Type : aqueous

Sample Time : 1619

KAR Sample No. : 102585-01

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 245.2	07/05/10	DBL	
Prep, metals	Completed		EPA 30xx,200.x	07/02/10	PML	
Arsenic, total, by ICP	<0.1	mg/L	EPA 200.7	07/05/10	DBL	
Cadmium, total	<0.005	mg/L	EPA 200.7	07/05/10	DBL	
Chromium, total	<0.01	mg/L	EPA 200.7	07/05/10	DBL	
Copper, total	<0.02	mg/L	EPA 200.7	07/05/10	DBL	
Lead, total, by ICP	<0.05	mg/L	EPA 200.7	07/05/10	DBL	
Mercury, total, low level	<0.0002	mg/L	EPA 245.2	07/05/10	DBL	
Nickel, total	<0.02	mg/L	EPA 200.7	07/05/10	DBL	
Silver, total	<0.005	mg/L	EPA 200.7	07/05/10	DBL	
Tin, total	<0.1	mg/L	EPA 200.7	07/05/10	DBL	
Zinc, total	<0.02	mg/L	EPA 200.7	07/05/10	DBL	
COD	<10	mg/L	EPA 410.4	07/05/10	DBL	
Cyanide, total	<0.005	mg/L	SM 4500-CN C,E	07/02/10	ALK	
Nitrogen, total kjeldahl	<5	mg/L	EPA 351.2	07/06/10	DMC	
Oil and grease (HEM)	<5	mg/L	EPA 1664	07/02/10	JAR	
PH	7.9	S.U.	SM 4500-H B	07/01/10	GJE	
Phenols, total	<0.02	mg/L	EPA 420.4	07/06/10	DRA	
Phosphorus, total (as P)	0.10	mg/L	SM 4500-P E,B5	07/06/10	DMC	
Sulfide	<2	mg/L	EPA 376.2	07/06/10	DRA	
Suspended solids, total	5	mg/L	SM 2540 D	07/02/10	DMC	
Prior. Poll. volatiles	See below		EPA 624	07/02/10	JAR	
Prep, VOA	Completed		EPA 624	07/02/10	JAR	
1,1,1-Trichloroethane	<1	ug/L	EPA 624	07/02/10	JAR	
1,1,2,2-Tetrachloroethane	<1	ug/L	EPA 624	07/02/10	JAR	
1,1,2-Trichloroethane	<1	ug/L	EPA 624	07/02/10	JAR	
1,1-Dichloroethane	<1	ug/L	EPA 624	07/02/10	JAR	
1,1-Dichloroethene	<1	ug/L	EPA 624	07/02/10	JAR	
1,2-Dichlorobenzene	<1	ug/L	EPA 624	07/02/10	JAR	
1,2-Dichloroethane	<1	ug/L	EPA 624	07/02/10	JAR	
1,2-Dichloropropane	<1	ug/L	EPA 624	07/02/10	JAR	
1,3-Dichlorobenzene	<1	ug/L	EPA 624	07/02/10	JAR	
1,4-Dichlorobenzene	<1	ug/L	EPA 624	07/02/10	JAR	
2-Chloroethylvinyl ether	<10	ug/L	EPA 624	07/02/10	JAR	
Acrolein	<20	ug/L	EPA 624	07/02/10	JAR	
Acrylonitrile	<2	ug/L	EPA 624	07/02/10	JAR	
Benzene	<1	ug/L	EPA 624	07/02/10	JAR	
Bromodichloromethane	<1	ug/L	EPA 624	07/02/10	JAR	

KAR Laboratories, Inc.

(269) 381-9666

LABORATORY DETAIL REPORT

Client: **CRA Services**

Attest: 
David R. Alkema, Lab Manager

KAR Project No. : **102585**

Date Reported: **07/07/10**

Project

Description: **Analysis of one aqueous sample from 12th St. Landfill (#56913-60).**

Sample ID : **"WW-056913-070110-DN-005"**

Sampled By : **DN of CRA Services**

Date Received : **07/01/10**

Sample Date : **07/01/10**

Sample Type : **aqueous**

Sample Time : **1619**

KAR Sample No. : **102585-01**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Bromoform	<1	ug/L	EPA 624	07/02/10	JAR	
Bromomethane	<1	ug/L	EPA 624	07/02/10	JAR	
Carbon tetrachloride	<1	ug/L	EPA 624	07/02/10	JAR	
Chlorobenzene	<1	ug/L	EPA 624	07/02/10	JAR	
Chloroethane	<1	ug/L	EPA 624	07/02/10	JAR	
Chloroform	<1	ug/L	EPA 624	07/02/10	JAR	
Chloromethane	<1	ug/L	EPA 624	07/02/10	JAR	
Cis-1,3-Dichloropropene	<1	ug/L	EPA 624	07/02/10	JAR	
Dibromochloromethane	<1	ug/L	EPA 624	07/02/10	JAR	
Ethylbenzene	<1	ug/L	EPA 624	07/02/10	JAR	
Methylene chloride	<1	ug/L	EPA 624	07/02/10	JAR	
Tetrachloroethene	<1	ug/L	EPA 624	07/02/10	JAR	
Toluene	<1	ug/L	EPA 624	07/02/10	JAR	
Trans-1,2-Dichloroethene	<1	ug/L	EPA 624	07/02/10	JAR	
Trans-1,3-Dichloropropene	<1	ug/L	EPA 624	07/02/10	JAR	
Trichloroethene	<1	ug/L	EPA 624	07/02/10	JAR	
Trichlorofluoromethane	<1	ug/L	EPA 624	07/02/10	JAR	
Vinyl chloride	<1	ug/L	EPA 624	07/02/10	JAR	
Prep, ECD	Completed		EPA 608	07/02/10	KTL	
PCB	See below		EPA 608	07/02/10	KTL	
PCB Aroclor 1016	<0.2	ug/L	EPA 608	07/02/10	KTL	
PCB Aroclor 1221	<0.2	ug/L	EPA 608	07/02/10	KTL	
PCB Aroclor 1232	<0.2	ug/L	EPA 608	07/02/10	KTL	
PCB Aroclor 1242	<0.2	ug/L	EPA 608	07/02/10	KTL	
PCB Aroclor 1248	<0.2	ug/L	EPA 608	07/02/10	KTL	
PCB Aroclor 1254	<0.2	ug/L	EPA 608	07/02/10	KTL	
PCB Aroclor 1260	<0.2	ug/L	EPA 608	07/02/10	KTL	
PCB Aroclors, total	NA		EPA 608	07/02/10	KTL	
12DCA-D4 (surr spk)	96	% spike recovery	EPA 624	07/02/10	JAR	
BFB (surr spk)	98	% spike recovery	EPA 624	07/02/10	JAR	
Toluene-D8 (surr spk)	102	% spike recovery	EPA 624	07/02/10	JAR	
DCB (pest/PCB surr spk)	70	% spike recovery	EPA 608	07/02/10	KTL	

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LABORATORY DETAIL REPORT

Client: **CRA Services**

Attest: 
David R. Alkema, Lab Manager

KAR Project No. : **102585**

Date Reported: **07/07/10**

Project

Description: **Analysis of one aqueous sample from 12th St. Landfill (#56913-60).**

Sample ID : Laboratory Method Blank						
Sampled By :			Date Received : 07/01/10			
Sample Date :			Sample Type : LMB			
Sample Time :			KAR Sample No. : 102585-02			
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 245.2	07/05/10	DBL	
Prep, metals	Completed		EPA 30xx,200.x	07/02/10	PML	
Arsenic, total, by ICP	<0.1	mg/L	EPA 200.7	07/05/10	DBL	
Cadmium, total	<0.005	mg/L	EPA 200.7	07/05/10	DBL	
Chromium, total	<0.01	mg/L	EPA 200.7	07/05/10	DBL	
Copper, total	<0.02	mg/L	EPA 200.7	07/05/10	DBL	
Lead, total, by ICP	<0.05	mg/L	EPA 200.7	07/05/10	DBL	
Mercury, total, low level	<0.0002	mg/L	EPA 245.2	07/05/10	DBL	
Nickel, total	<0.02	mg/L	EPA 200.7	07/05/10	DBL	
Silver, total	<0.005	mg/L	EPA 200.7	07/05/10	DBL	
Tin, total	<0.1	mg/L	EPA 200.7	07/05/10	DBL	
Zinc, total	<0.02	mg/L	EPA 200.7	07/05/10	DBL	
COD	<10	mg/L	EPA 410.4	07/05/10	DBL	
Cyanide, total	<0.005	mg/L	SM 4500-CN C,E	07/02/10	ALK	
Nitrogen, total kjeldahl	<5	mg/L	EPA 351.2	07/06/10	DMC	
Oil and grease (HEM)	<5	mg/L	EPA 1664	07/02/10	JAR	
Phenols, total	<0.02	mg/L	EPA 420.4	07/06/10	DRA	
Phosphorus, total (as P)	<0.02	mg/L	SM 4500-P E,B5	07/06/10	DMC	
Sulfide	<2	mg/L	EPA 376.2	07/06/10	DRA	
Suspended solids, total	<4	mg/L	SM 2540 D	07/02/10	DMC	
Prior. Poll. volatiles	See below		EPA 624	07/02/10	JAR	
Prep, VOA	Completed		EPA 624	07/02/10	JAR	
1,1,1-Trichloroethane	<1	ug/L	EPA 624	07/02/10	JAR	
1,1,2,2-Tetrachloroethane	<1	ug/L	EPA 624	07/02/10	JAR	
1,1,2-Trichloroethane	<1	ug/L	EPA 624	07/02/10	JAR	
1,1-Dichloroethane	<1	ug/L	EPA 624	07/02/10	JAR	
1,1-Dichloroethene	<1	ug/L	EPA 624	07/02/10	JAR	
1,2-Dichlorobenzene	<1	ug/L	EPA 624	07/02/10	JAR	
1,2-Dichloroethane	<1	ug/L	EPA 624	07/02/10	JAR	
1,2-Dichloropropane	<1	ug/L	EPA 624	07/02/10	JAR	
1,3-Dichlorobenzene	<1	ug/L	EPA 624	07/02/10	JAR	
1,4-Dichlorobenzene	<1	ug/L	EPA 624	07/02/10	JAR	
2-Chloroethylvinyl ether	<10	ug/L	EPA 624	07/02/10	JAR	
Acrolein	<20	ug/L	EPA 624	07/02/10	JAR	
Acrylonitrile	<2	ug/L	EPA 624	07/02/10	JAR	
Benzene	<1	ug/L	EPA 624	07/02/10	JAR	
Bromodichloromethane	<1	ug/L	EPA 624	07/02/10	JAR	
Bromoform	<1	ug/L	EPA 624	07/02/10	JAR	
Bromomethane	<1	ug/L	EPA 624	07/02/10	JAR	

KAR Laboratories, Inc.

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LABORATORY DETAIL REPORT

Client: **CRA Services**

Attest: 
David R. Alkema, Lab Manager

KAR Project No. : **102585**

Date Reported: **07/07/10**

Project

Description: **Analysis of one aqueous sample from 12th St. Landfill (#56913-60).**

Sample ID : Laboratory Method Blank						
Sampled By :			Date Received : 07/01/10			
Sample Date :			Sample Type : LMB			
Sample Time :			KAR Sample No. : 102585-02			
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Carbon tetrachloride	<1	ug/L	EPA 624	07/02/10	JAR	
Chlorobenzene	<1	ug/L	EPA 624	07/02/10	JAR	
Chloroethane	<1	ug/L	EPA 624	07/02/10	JAR	
Chloroform	<1	ug/L	EPA 624	07/02/10	JAR	
Chloromethane	<1	ug/L	EPA 624	07/02/10	JAR	
Cis-1,3-Dichloropropene	<1	ug/L	EPA 624	07/02/10	JAR	
Dibromochloromethane	<1	ug/L	EPA 624	07/02/10	JAR	
Ethylbenzene	<1	ug/L	EPA 624	07/02/10	JAR	
Methylene chloride	<1	ug/L	EPA 624	07/02/10	JAR	
Tetrachloroethene	<1	ug/L	EPA 624	07/02/10	JAR	
Toluene	<1	ug/L	EPA 624	07/02/10	JAR	
Trans-1,2-Dichloroethene	<1	ug/L	EPA 624	07/02/10	JAR	
Trans-1,3-Dichloropropene	<1	ug/L	EPA 624	07/02/10	JAR	
Trichloroethene	<1	ug/L	EPA 624	07/02/10	JAR	
Trichlorofluoromethane	<1	ug/L	EPA 624	07/02/10	JAR	
Vinyl chloride	<1	ug/L	EPA 624	07/02/10	JAR	
Prep, ECD	Completed		EPA 608	07/02/10	KTL	
PCB	See below		EPA 608	07/02/10	KTL	
PCB Aroclor 1016	<0.2	ug/L	EPA 608	07/02/10	KTL	
PCB Aroclor 1221	<0.2	ug/L	EPA 608	07/02/10	KTL	
PCB Aroclor 1232	<0.2	ug/L	EPA 608	07/02/10	KTL	
PCB Aroclor 1242	<0.2	ug/L	EPA 608	07/02/10	KTL	
PCB Aroclor 1248	<0.2	ug/L	EPA 608	07/02/10	KTL	
PCB Aroclor 1254	<0.2	ug/L	EPA 608	07/02/10	KTL	
PCB Aroclor 1260	<0.2	ug/L	EPA 608	07/02/10	KTL	
PCB Aroclors, total	NA		EPA 608	07/02/10	KTL	
12DCA-D4 (surr spk)	98	% spike recovery	EPA 624	07/02/10	JAR	
BFB (surr spk)	101	% spike recovery	EPA 624	07/02/10	JAR	
Toluene-D8 (surr spk)	103	% spike recovery	EPA 624	07/02/10	JAR	
DCB (pest/PCB surr spk)	56	% spike recovery	EPA 608	07/02/10	KTL	

KAR Laboratories, Inc.

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Kalamazoo, MI 49001

Phone 269 381-9666

Fax 269 381-9698

www.karlabs.com

Attn : Mr. Paul Wiseman

KAR Project No. : 102235
Date Reported : 06/11/10
Date Activated : 06/09/10
Date Due : 06/11/10
Date Validated : 06/11/10

Project

**Description : Analysis of one aqueous sample from 12th Street Landfill
(#056913-60).**

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received. If a sample was identified as drinking water under the Safe Drinking Water Act, the "Comments" column may also contain federal drinking water information including MCL which is the Maximum Contaminant Level set by USEPA. Values enclosed in brackets ([]) are Secondary MCL's and are non-enforceable guidelines for aesthetic quality.

If you wish to contact us about this work please mention KAR Project No. 102235. To arrange additional sampling or testing please contact our Client Services Department. If you have any questions regarding quality assurance please contact us.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

David R. Alkema
Laboratory Manager

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LABORATORY DETAIL REPORT

Client: **CRA Services**

Attest: 
David R. Alkema, Lab Manager

KAR Project No. : **102235**

Date Reported: **06/11/10**

Project

Description: *Analysis of one aqueous sample from 12th Street Landfill (#056913-60).*

Sample ID : **"WW-056913-060910-KN-001"**

Sampled By : **JD of CRA Services**

Date Received : **06/09/10**

Sample Date : **06/09/10**

Sample Type : **aqueous**

Sample Time : **1516**

KAR Sample No. : **102235-01**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 245.2	06/10/10	DBL	
Prep, metals	Completed		EPA 30xx,200.x	06/10/10	PML	
Arsenic, total, by ICP	<0.1	mg/L	EPA 200.7	06/10/10	DBL	
Cadmium, total	<0.005	mg/L	EPA 200.7	06/10/10	DBL	
Chromium, total	<0.01	mg/L	EPA 200.7	06/10/10	DBL	
Copper, total	<0.02	mg/L	EPA 200.7	06/10/10	DBL	
Lead, total, by ICP	<0.05	mg/L	EPA 200.7	06/10/10	DBL	
Mercury, total	<0.0005	mg/L	EPA 245.2	06/10/10	DBL	
Nickel, total	<0.02	mg/L	EPA 200.7	06/10/10	DBL	
Silver, total	<0.005	mg/L	EPA 200.7	06/10/10	DBL	
Tin, total	<0.1	mg/L	EPA 200.7	06/10/10	DBL	
Zinc, total	<0.02	mg/L	EPA 200.7	06/10/10	DBL	
COD	<10	mg/L	EPA 410.4	06/10/10	DBL	
Cyanide, total	<0.005	mg/L	SM 4500-CN C,E	06/10/10	MTW	
Nitrogen, total kjeldahl	<5	mg/L	EPA 351.2	06/09/10	MTW	
Oil and grease (HEM)	<5	mg/L	EPA 1664	06/10/10	GMB	
PH	8.3	S.U.	SM 4500-H B	06/09/10	HES	
Phenols, total	<0.02	mg/L	EPA 420.4	06/10/10	MTW	
Phosphorus, total (as P)	0.11	mg/L	SM 4500-P E,B5	06/10/10	DMC	
Sulfide	<2	mg/L	EPA 376.2	06/09/10	MTW	
Suspended solids, total	<4	mg/L	SM 2540 D	06/09/10	MTW	
Prior. Poll. volatiles	See below		EPA 624	06/10/10	JAR	
Prep, VOA	Completed		EPA 624	06/10/10	JAR	
1,1,1-Trichloroethane	<1	ug/L	EPA 624	06/10/10	JAR	
1,1,2,2-Tetrachloroethane	<1	ug/L	EPA 624	06/10/10	JAR	
1,1,2-Trichloroethane	<1	ug/L	EPA 624	06/10/10	JAR	
1,1-Dichloroethane	<1	ug/L	EPA 624	06/10/10	JAR	
1,1-Dichloroethene	<1	ug/L	EPA 624	06/10/10	JAR	
1,2-Dichlorobenzene	<1	ug/L	EPA 624	06/10/10	JAR	
1,2-Dichloroethane	<1	ug/L	EPA 624	06/10/10	JAR	
1,2-Dichloropropane	<1	ug/L	EPA 624	06/10/10	JAR	
1,3-Dichlorobenzene	<1	ug/L	EPA 624	06/10/10	JAR	
1,4-Dichlorobenzene	<1	ug/L	EPA 624	06/10/10	JAR	
2-Chloroethylvinyl ether	<10	ug/L	EPA 624	06/10/10	JAR	
Acrolein	<20	ug/L	EPA 624	06/10/10	JAR	
Acrylonitrile	<2	ug/L	EPA 624	06/10/10	JAR	
Benzene	<1	ug/L	EPA 624	06/10/10	JAR	
Bromodichloromethane	<1	ug/L	EPA 624	06/10/10	JAR	

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LABORATORY DETAIL REPORT

Client: **CRA Services**

Attest: 
David R. Alkema, Lab Manager

KAR Project No. : **102235**

Date Reported: **06/11/10**

Project

Description: **Analysis of one aqueous sample from 12th Street Landfill (#056913-60).**

Sample ID : **"WW-056913-060910-KN-001"**

Sampled By : **JD of CRA Services**

Date Received : **06/09/10**

Sample Date : **06/09/10**

Sample Type : **aqueous**

Sample Time : **1516**

KAR Sample No. : **102235-01**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Bromoform	<1	ug/L	EPA 624	06/10/10	JAR	
Bromomethane	<1	ug/L	EPA 624	06/10/10	JAR	
Carbon tetrachloride	<1	ug/L	EPA 624	06/10/10	JAR	
Chlorobenzene	<1	ug/L	EPA 624	06/10/10	JAR	
Chloroethane	<1	ug/L	EPA 624	06/10/10	JAR	
Chloroform	<1	ug/L	EPA 624	06/10/10	JAR	
Chloromethane	<1	ug/L	EPA 624	06/10/10	JAR	
Cis-1,3-Dichloropropene	<1	ug/L	EPA 624	06/10/10	JAR	
Dibromochloromethane	<1	ug/L	EPA 624	06/10/10	JAR	
Ethylbenzene	<1	ug/L	EPA 624	06/10/10	JAR	
Methylene chloride	<1	ug/L	EPA 624	06/10/10	JAR	
Tetrachloroethene	<1	ug/L	EPA 624	06/10/10	JAR	
Toluene	<1	ug/L	EPA 624	06/10/10	JAR	
Trans-1,2-Dichloroethene	<1	ug/L	EPA 624	06/10/10	JAR	
Trans-1,3-Dichloropropene	<1	ug/L	EPA 624	06/10/10	JAR	
Trichloroethene	<1	ug/L	EPA 624	06/10/10	JAR	
Trichlorofluoromethane	<1	ug/L	EPA 624	06/10/10	JAR	
Vinyl chloride	<1	ug/L	EPA 624	06/10/10	JAR	
Prep, ECD	Completed		EPA 608	06/10/10	KTL	
PCB	See below		EPA 608	06/10/10	GMB	
PCB Aroclor 1016	<0.2	ug/L	EPA 608	06/10/10	GMB	
PCB Aroclor 1221	<0.2	ug/L	EPA 608	06/10/10	GMB	
PCB Aroclor 1232	<0.2	ug/L	EPA 608	06/10/10	GMB	
PCB Aroclor 1242	<0.2	ug/L	EPA 608	06/10/10	GMB	
PCB Aroclor 1248	<0.2	ug/L	EPA 608	06/10/10	GMB	
PCB Aroclor 1254	<0.2	ug/L	EPA 608	06/10/10	GMB	
PCB Aroclor 1260	<0.2	ug/L	EPA 608	06/10/10	GMB	
PCB Aroclors, total	NA		EPA 608	06/10/10	GMB	
DCB (pest/PCB surr spk)	72	% spike recovery	EPA 608	06/10/10	GMB	

LABORATORY DETAIL REPORT

Client: **CRA Services**

Attest: 
David R. Alkema, Lab Manager

KAR Project No. : **102235**

Date Reported: **06/11/10**

Project

Description: **Analysis of one aqueous sample from 12th Street Landfill (#056913-60).**

Sample ID : Laboratory Method Blank						
Sampled By :			Date Received : 06/09/10			
Sample Date :			Sample Type : LMB			
Sample Time :			KAR Sample No. : 102235-02			
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 245.2	06/10/10	DBL	
Prep, metals	Completed		EPA 30xx,200.x	06/10/10	PML	
Arsenic, total, by ICP	<0.1	mg/L	EPA 200.7	06/10/10	DBL	
Cadmium, total	<0.005	mg/L	EPA 200.7	06/10/10	DBL	
Chromium, total	<0.01	mg/L	EPA 200.7	06/10/10	DBL	
Copper, total	<0.02	mg/L	EPA 200.7	06/10/10	DBL	
Lead, total, by ICP	<0.05	mg/L	EPA 200.7	06/10/10	DBL	
Mercury, total	<0.0005	mg/L	EPA 245.2	06/10/10	DBL	
Nickel, total	<0.02	mg/L	EPA 200.7	06/10/10	DBL	
Silver, total	<0.005	mg/L	EPA 200.7	06/10/10	DBL	
Tin, total	<0.1	mg/L	EPA 200.7	06/10/10	DBL	
Zinc, total	<0.02	mg/L	EPA 200.7	06/10/10	DBL	
COD	<10	mg/L	EPA 410.4	06/10/10	DBL	
Cyanide, total	<0.005	mg/L	SM 4500-CN C,E	06/10/10	MTW	
Nitrogen, total kjeldahl	<5	mg/L	EPA 351.2	06/09/10	MTW	
Oil and grease (HEM)	<5	mg/L	EPA 1664	06/10/10	GMB	
Phenols, total	<0.02	mg/L	EPA 420.4	06/10/10	MTW	
Phosphorus, total (as P)	<0.02	mg/L	SM 4500-P E,B5	06/10/10	DMC	
Sulfide	<2	mg/L	EPA 376.2	06/09/10	MTW	
Suspended solids, total	<4	mg/L	SM 2540 D	06/09/10	MTW	
Prior. Poll. volatiles	See below		EPA 624	06/10/10	JAR	
Prep, VOA	Completed		EPA 624	06/10/10	JAR	
1,1,1-Trichloroethane	<1	ug/L	EPA 624	06/10/10	JAR	
1,1,2,2-Tetrachloroethane	<1	ug/L	EPA 624	06/10/10	JAR	
1,1,2-Trichloroethane	<1	ug/L	EPA 624	06/10/10	JAR	
1,1-Dichloroethane	<1	ug/L	EPA 624	06/10/10	JAR	
1,1-Dichloroethene	<1	ug/L	EPA 624	06/10/10	JAR	
1,2-Dichlorobenzene	<1	ug/L	EPA 624	06/10/10	JAR	
1,2-Dichloroethane	<1	ug/L	EPA 624	06/10/10	JAR	
1,2-Dichloropropane	<1	ug/L	EPA 624	06/10/10	JAR	
1,3-Dichlorobenzene	<1	ug/L	EPA 624	06/10/10	JAR	
1,4-Dichlorobenzene	<1	ug/L	EPA 624	06/10/10	JAR	
2-Chloroethylvinyl ether	<10	ug/L	EPA 624	06/10/10	JAR	
Acrolein	<20	ug/L	EPA 624	06/10/10	JAR	
Acrylonitrile	<2	ug/L	EPA 624	06/10/10	JAR	
Benzene	<1	ug/L	EPA 624	06/10/10	JAR	
Bromodichloromethane	<1	ug/L	EPA 624	06/10/10	JAR	
Bromoform	<1	ug/L	EPA 624	06/10/10	JAR	
Bromomethane	<1	ug/L	EPA 624	06/10/10	JAR	

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LABORATORY DETAIL REPORT

Client: **CRA Services**

Attest: 
David R. Alkema, Lab Manager

KAR Project No. : **102235**

Date Reported: **06/11/10**

Project

Description: **Analysis of one aqueous sample from 12th Street Landfill (#056913-60).**

Sample ID : Laboratory Method Blank						
Sampled By :			Date Received : 06/09/10			
Sample Date :			Sample Type : LMB			
Sample Time :			KAR Sample No. : 102235-02			
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Carbon tetrachloride	<1	ug/L	EPA 624	06/10/10	JAR	
Chlorobenzene	<1	ug/L	EPA 624	06/10/10	JAR	
Chloroethane	<1	ug/L	EPA 624	06/10/10	JAR	
Chloroform	<1	ug/L	EPA 624	06/10/10	JAR	
Chloromethane	<1	ug/L	EPA 624	06/10/10	JAR	
Cis-1,3-Dichloropropene	<1	ug/L	EPA 624	06/10/10	JAR	
Dibromochloromethane	<1	ug/L	EPA 624	06/10/10	JAR	
Ethylbenzene	<1	ug/L	EPA 624	06/10/10	JAR	
Methylene chloride	<1	ug/L	EPA 624	06/10/10	JAR	
Tetrachloroethene	<1	ug/L	EPA 624	06/10/10	JAR	
Toluene	<1	ug/L	EPA 624	06/10/10	JAR	
Trans-1,2-Dichloroethene	<1	ug/L	EPA 624	06/10/10	JAR	
Trans-1,3-Dichloropropene	<1	ug/L	EPA 624	06/10/10	JAR	
Trichloroethene	<1	ug/L	EPA 624	06/10/10	JAR	
Trichlorofluoromethane	<1	ug/L	EPA 624	06/10/10	JAR	
Vinyl chloride	<1	ug/L	EPA 624	06/10/10	JAR	
Prep, ECD	Completed		EPA 608	06/10/10	KTL	
PCB	See below		EPA 608	06/10/10	GMB	
PCB Aroclor 1016	<0.2	ug/L	EPA 608	06/10/10	GMB	
PCB Aroclor 1221	<0.2	ug/L	EPA 608	06/10/10	GMB	
PCB Aroclor 1232	<0.2	ug/L	EPA 608	06/10/10	GMB	
PCB Aroclor 1242	<0.2	ug/L	EPA 608	06/10/10	GMB	
PCB Aroclor 1248	<0.2	ug/L	EPA 608	06/10/10	GMB	
PCB Aroclor 1254	<0.2	ug/L	EPA 608	06/10/10	GMB	
PCB Aroclor 1260	<0.2	ug/L	EPA 608	06/10/10	GMB	
PCB Aroclors, total	NA		EPA 608	06/10/10	GMB	
DCB (pest/PCB surr spk)	78	% spike recovery	EPA 608	06/10/10	GMB	

KAR Laboratories, Inc.

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Phone 269 381-9666

Fax 269 381-9698

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CRA Services
14496 Sheldon Rd., Suite 200
Plymouth, MI 48170

Attn : Mr. Paul Wiseman

KAR Project No. : 102404
Date Reported : 06/23/10
Date Activated : 06/22/10
Date Due : 06/23/10
Date Validated : 06/23/10

Project

**Description : Analysis of one aqueous sample from 12th St. Landfill
(#56913-60).**

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received. If a sample was identified as drinking water under the Safe Drinking Water Act, the "Comments" column may also contain federal drinking water information including MCL which is the Maximum Contaminant Level set by USEPA. Values enclosed in brackets ([]) are Secondary MCL's and are non-enforceable guidelines for aesthetic quality.

If you wish to contact us about this work please mention KAR Project No. 102404. To arrange additional sampling or testing please contact our Client Services Department. If you have any questions regarding quality assurance please contact us.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

David R. Alkema
Laboratory Manager

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LABORATORY DETAIL REPORT

Client: CRA Services

Attest: 
David R. Alkema, Lab Manager

KAR Project No. : 102404

Date Reported: 06/23/10

Project

Description: Analysis of one aqueous sample from 12th St. Landfill (#56913-60).

Sample ID : "WW-056913-062110-JV-002"

Sampled By : JV of CRA Services

Date Received : 06/22/10

Sample Date : 06/21/10

Sample Type : aqueous

Sample Time : 1600

KAR Sample No. : 102404-01

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 245.2	06/22/10	DBL	
Prep, metals	Completed		EPA 30xx,200.x	06/22/10	DBL	
Arsenic, total, by ICP	<0.1	mg/L	EPA 200.7	06/22/10	DBL	
Cadmium, total	<0.005	mg/L	EPA 200.7	06/22/10	DBL	
Chromium, total	<0.01	mg/L	EPA 200.7	06/22/10	DBL	
Copper, total	<0.02	mg/L	EPA 200.7	06/22/10	DBL	
Lead, total, by ICP	<0.05	mg/L	EPA 200.7	06/22/10	DBL	
Mercury, total	<0.0005	mg/L	EPA 245.2	06/22/10	DBL	
Nickel, total	<0.02	mg/L	EPA 200.7	06/22/10	DBL	
Silver, total	<0.005	mg/L	EPA 200.7	06/22/10	DBL	
Tin, total	<0.1	mg/L	EPA 200.7	06/22/10	DBL	
Zinc, total	<0.02	mg/L	EPA 200.7	06/22/10	DBL	
COD	<10	mg/L	EPA 410.4	06/22/10	DBL	
Cyanide, total	<0.005	mg/L	SM 4500-CN C,E	06/22/10	MTW	
Nitrogen, total kjeldahl	<5	mg/L	EPA 351.2	06/22/10	MTW	
Oil and grease (HEM)	<5	mg/L	EPA 1664	06/22/10	GMB	
PH	8.6	S.U.	SM 4500-H B	06/22/10	HES	Sample received past holding time; result is approximate.
Phenols, total	<0.02	mg/L	EPA 420.4	06/22/10	MTW	
Phosphorus, total (as P)	0.15	mg/L	SM 4500-P E,B5	06/22/10	DRA	
Sulfide	<2	mg/L	EPA 376.2	06/22/10	MTW	
Suspended solids, total	<4	mg/L	SM 2540 D	06/22/10	MTW	
Prior. Poll. volatiles	See below		EPA 624	06/22/10	JAR	
Prep, VOA	Completed		EPA 624	06/22/10	JAR	
1,1,1-Trichloroethane	<1	ug/L	EPA 624	06/22/10	JAR	
1,1,2,2-Tetrachloroethane	<1	ug/L	EPA 624	06/22/10	JAR	
1,1,2-Trichloroethane	<1	ug/L	EPA 624	06/22/10	JAR	
1,1-Dichloroethane	<1	ug/L	EPA 624	06/22/10	JAR	
1,1-Dichloroethene	<1	ug/L	EPA 624	06/22/10	JAR	
1,2-Dichlorobenzene	<1	ug/L	EPA 624	06/22/10	JAR	
1,2-Dichloroethane	<1	ug/L	EPA 624	06/22/10	JAR	
1,2-Dichloropropane	<1	ug/L	EPA 624	06/22/10	JAR	
1,3-Dichlorobenzene	<1	ug/L	EPA 624	06/22/10	JAR	
1,4-Dichlorobenzene	<1	ug/L	EPA 624	06/22/10	JAR	
2-Chloroethylvinyl ether	<10	ug/L	EPA 624	06/22/10	JAR	
Acrolein	<20	ug/L	EPA 624	06/22/10	JAR	
Acrylonitrile	<2	ug/L	EPA 624	06/22/10	JAR	
Benzene	<1	ug/L	EPA 624	06/22/10	JAR	
Bromodichloromethane	<1	ug/L	EPA 624	06/22/10	JAR	

KAR Laboratories, Inc.

(269) 381-9666

LABORATORY DETAIL REPORT

Client: **CRA Services**

Attest: 
David R. Alkema, Lab Manager

KAR Project No. : **102404**

Date Reported: **06/23/10**

Project

Description: **Analysis of one aqueous sample from 12th St. Landfill (#56913-60).**

Sample ID : **"WW-056913-062110-JV-002"**

Sampled By : **JV of CRA Services**

Sample Date : **06/21/10**

Sample Time : **1600**

Date Received : **06/22/10**

Sample Type : **aqueous**

KAR Sample No. : **102404-01**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Bromoform	<1	ug/L	EPA 624	06/22/10	JAR	
Bromomethane	<1	ug/L	EPA 624	06/22/10	JAR	
Carbon tetrachloride	<1	ug/L	EPA 624	06/22/10	JAR	
Chlorobenzene	<1	ug/L	EPA 624	06/22/10	JAR	
Chloroethane	<1	ug/L	EPA 624	06/22/10	JAR	
Chloroform	<1	ug/L	EPA 624	06/22/10	JAR	
Chloromethane	<1	ug/L	EPA 624	06/22/10	JAR	
Cis-1,3-Dichloropropene	<1	ug/L	EPA 624	06/22/10	JAR	
Dibromochloromethane	<1	ug/L	EPA 624	06/22/10	JAR	
Ethylbenzene	<1	ug/L	EPA 624	06/22/10	JAR	
Methylene chloride	<1	ug/L	EPA 624	06/22/10	JAR	
Tetrachloroethene	<1	ug/L	EPA 624	06/22/10	JAR	
Toluene	<1	ug/L	EPA 624	06/22/10	JAR	
Trans-1,2-Dichloroethene	<1	ug/L	EPA 624	06/22/10	JAR	
Trans-1,3-Dichloropropene	<1	ug/L	EPA 624	06/22/10	JAR	
Trichloroethene	<1	ug/L	EPA 624	06/22/10	JAR	
Trichlorofluoromethane	<1	ug/L	EPA 624	06/22/10	JAR	
Vinyl chloride	<1	ug/L	EPA 624	06/22/10	JAR	
Prep, ECD	Completed		EPA 608	06/22/10	GMB	
PCB	See below		EPA 608	06/22/10	GMB	
PCB Aroclor 1016	<0.2	ug/L	EPA 608	06/22/10	GMB	
PCB Aroclor 1221	<0.2	ug/L	EPA 608	06/22/10	GMB	
PCB Aroclor 1232	<0.2	ug/L	EPA 608	06/22/10	GMB	
PCB Aroclor 1242	<0.2	ug/L	EPA 608	06/22/10	GMB	
PCB Aroclor 1248	<0.2	ug/L	EPA 608	06/22/10	GMB	
PCB Aroclor 1254	<0.2	ug/L	EPA 608	06/22/10	GMB	
PCB Aroclor 1260	<0.2	ug/L	EPA 608	06/22/10	GMB	
PCB Aroclors, total	NA		EPA 608	06/22/10	GMB	
DCB (pest/PCB surr spk)	71	% spike recovery	EPA 608	06/22/10	GMB	

KAR Laboratories, Inc.

(269) 381-9666

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LABORATORY DETAIL REPORT

Client: **CRA Services**

Attest: 
David R. Alkema, Lab Manager

KAR Project No. : **102404**

Date Reported: **06/23/10**

Project

Description: **Analysis of one aqueous sample from 12th St. Landfill (#56913-60).**

Sample ID : Laboratory Method Blank						
Sampled By :			Date Received : 06/22/10			
Sample Date :			Sample Type : LMB			
Sample Time :			KAR Sample No. : 102404-02			
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 245.2	06/22/10	DBL	
Prep, metals	Completed		EPA 30xx,200.x	06/22/10	DBL	
Arsenic, total, by ICP	<0.1	mg/L	EPA 200.7	06/22/10	DBL	
Cadmium, total	<0.005	mg/L	EPA 200.7	06/22/10	DBL	
Chromium, total	<0.01	mg/L	EPA 200.7	06/22/10	DBL	
Copper, total	<0.02	mg/L	EPA 200.7	06/22/10	DBL	
Lead, total, by ICP	<0.05	mg/L	EPA 200.7	06/22/10	DBL	
Mercury, total	<0.0005	mg/L	EPA 245.2	06/22/10	DBL	
Nickel, total	<0.02	mg/L	EPA 200.7	06/22/10	DBL	
Silver, total	<0.005	mg/L	EPA 200.7	06/22/10	DBL	
Tin, total	<0.1	mg/L	EPA 200.7	06/22/10	DBL	
Zinc, total	<0.02	mg/L	EPA 200.7	06/22/10	DBL	
COD	<10	mg/L	EPA 410.4	06/22/10	DBL	
Cyanide, total	<0.005	mg/L	SM 4500-CN C,E	06/22/10	MTW	
Nitrogen, total kjeldahl	<5	mg/L	EPA 351.2	06/22/10	MTW	
Oil and grease (HEM)	<5	mg/L	EPA 1664	06/22/10	GMB	
Phenols, total	<0.02	mg/L	EPA 420.4	06/22/10	MTW	
Phosphorus, total (as P)	<0.02	mg/L	SM 4500-P E,B5	06/22/10	DRA	
Sulfide	<2	mg/L	EPA 376.2	06/22/10	MTW	
Suspended solids, total	<4	mg/L	SM 2540 D	06/22/10	MTW	
Prior. Poll. volatiles	See below		EPA 624	06/22/10	JAR	
Prep, VOA	Completed		EPA 624	06/22/10	JAR	
1,1,1-Trichloroethane	<1	ug/L	EPA 624	06/22/10	JAR	
1,1,2,2-Tetrachloroethane	<1	ug/L	EPA 624	06/22/10	JAR	
1,1,2-Trichloroethane	<1	ug/L	EPA 624	06/22/10	JAR	
1,1-Dichloroethane	<1	ug/L	EPA 624	06/22/10	JAR	
1,1-Dichloroethene	<1	ug/L	EPA 624	06/22/10	JAR	
1,2-Dichlorobenzene	<1	ug/L	EPA 624	06/22/10	JAR	
1,2-Dichloroethane	<1	ug/L	EPA 624	06/22/10	JAR	
1,2-Dichloropropane	<1	ug/L	EPA 624	06/22/10	JAR	
1,3-Dichlorobenzene	<1	ug/L	EPA 624	06/22/10	JAR	
1,4-Dichlorobenzene	<1	ug/L	EPA 624	06/22/10	JAR	
2-Chloroethylvinyl ether	<10	ug/L	EPA 624	06/22/10	JAR	
Acrolein	<20	ug/L	EPA 624	06/22/10	JAR	
Acrylonitrile	<2	ug/L	EPA 624	06/22/10	JAR	
Benzene	<1	ug/L	EPA 624	06/22/10	JAR	
Bromodichloromethane	<1	ug/L	EPA 624	06/22/10	JAR	
Bromoform	<1	ug/L	EPA 624	06/22/10	JAR	
Bromomethane	<1	ug/L	EPA 624	06/22/10	JAR	

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LABORATORY DETAIL REPORT

Client: **CRA Services**

Attest: 
David R. Alkema, Lab Manager

KAR Project No. : **102404**

Date Reported: **06/23/10**

Project

Description: **Analysis of one aqueous sample from 12th St. Landfill (#56913-60).**

Sample ID : Laboratory Method Blank						
Sampled By :			Date Received : 06/22/10			
Sample Date :			Sample Type : LMB			
Sample Time :			KAR Sample No. : 102404-02			
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Carbon tetrachloride	<1	ug/L	EPA 624	06/22/10	JAR	
Chlorobenzene	<1	ug/L	EPA 624	06/22/10	JAR	
Chloroethane	<1	ug/L	EPA 624	06/22/10	JAR	
Chloroform	<1	ug/L	EPA 624	06/22/10	JAR	
Chloromethane	<1	ug/L	EPA 624	06/22/10	JAR	
Cis-1,3-Dichloropropene	<1	ug/L	EPA 624	06/22/10	JAR	
Dibromochloromethane	<1	ug/L	EPA 624	06/22/10	JAR	
Ethylbenzene	<1	ug/L	EPA 624	06/22/10	JAR	
Methylene chloride	<1	ug/L	EPA 624	06/22/10	JAR	
Tetrachloroethene	<1	ug/L	EPA 624	06/22/10	JAR	
Toluene	<1	ug/L	EPA 624	06/22/10	JAR	
Trans-1,2-Dichloroethene	<1	ug/L	EPA 624	06/22/10	JAR	
Trans-1,3-Dichloropropene	<1	ug/L	EPA 624	06/22/10	JAR	
Trichloroethene	<1	ug/L	EPA 624	06/22/10	JAR	
Trichlorofluoromethane	<1	ug/L	EPA 624	06/22/10	JAR	
Vinyl chloride	<1	ug/L	EPA 624	06/22/10	JAR	
Prep, ECD	Completed		EPA 608	06/22/10	GMB	
PCB	See below		EPA 608	06/22/10	GMB	
PCB Aroclor 1016	<0.2	ug/L	EPA 608	06/22/10	GMB	
PCB Aroclor 1221	<0.2	ug/L	EPA 608	06/22/10	GMB	
PCB Aroclor 1232	<0.2	ug/L	EPA 608	06/22/10	GMB	
PCB Aroclor 1242	<0.2	ug/L	EPA 608	06/22/10	GMB	
PCB Aroclor 1248	<0.2	ug/L	EPA 608	06/22/10	GMB	
PCB Aroclor 1254	<0.2	ug/L	EPA 608	06/22/10	GMB	
PCB Aroclor 1260	<0.2	ug/L	EPA 608	06/22/10	GMB	
PCB Aroclors, total	NA		EPA 608	06/22/10	GMB	
DCB (pest/PCB surr spk)	67	% spike recovery	EPA 608	06/22/10	GMB	

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CRA Services
14496 Sheldon Rd., Suite 200
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4425 Manchester

Road

Kalamazoo, MI 49001

Phone 269 381-9666

Fax 269 381-9698

www.karlabs.com

Attn : Mr. Paul Wiseman

KAR Project No. : 102518
Date Reported : 06/30/10
Date Activated : 06/29/10
Date Due : 06/30/10
Date Validated : 06/30/10

Project

**Description : Analysis of two aqueous samples from 12th St. Landfill
(#56913-60).**

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received. If a sample was identified as drinking water under the Safe Drinking Water Act, the "Comments" column may also contain federal drinking water information including MCL which is the Maximum Contaminant Level set by USEPA. Values enclosed in brackets ([]) are Secondary MCL's and are non-enforceable guidelines for aesthetic quality.

If you wish to contact us about this work please mention KAR Project No. 102518. To arrange additional sampling or testing please contact our Client Services Department. If you have any questions regarding quality assurance please contact us.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

David R. Alkema
Laboratory Manager

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LABORATORY DETAIL REPORT

Client: CRA Services

Attest: 
David R. Alkema, Lab Manager

KAR Project No. : 102518

Date Reported: 06/30/10

Project

Description: Analysis of two aqueous samples from 12th St. Landfill (#56913-60).

Sample ID : "WW-056913-062910-JV-003"

Sampled By : JV of CRA Services

Date Received : 06/29/10

Sample Date : 06/29/10

Sample Type : aqueous

Sample Time : 0906

KAR Sample No. : 102518-01

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 245.2	06/29/10	DBL	
Prep, metals	Completed		EPA 30xx,200.x	06/29/10	DBL	
Arsenic, total, by ICP	<0.1	mg/L	EPA 200.7	06/29/10	DBL	
Cadmium, total	<0.005	mg/L	EPA 200.7	06/29/10	DBL	
Chromium, total	<0.01	mg/L	EPA 200.7	06/29/10	DBL	
Copper, total	<0.02	mg/L	EPA 200.7	06/29/10	DBL	
Lead, total, by ICP	<0.05	mg/L	EPA 200.7	06/29/10	DBL	
Mercury, total, low level	<0.0002	mg/L	EPA 245.2	06/29/10	DBL	
Nickel, total	<0.02	mg/L	EPA 200.7	06/29/10	DBL	
Silver, total	<0.005	mg/L	EPA 200.7	06/29/10	DBL	
Tin, total	<0.1	mg/L	EPA 200.7	06/29/10	DBL	
Zinc, total	<0.02	mg/L	EPA 200.7	06/29/10	DBL	
COD	<10	mg/L	EPA 410.4	06/29/10	DBL	
Cyanide, total	<0.005	mg/L	SM 4500-CN C,E	06/29/10	DRA	
Nitrogen, total kjeldahl	<5	mg/L	EPA 351.2	06/29/10	DRA	
Oil and grease (HEM)	<5	mg/L	EPA 1664	06/29/10	GMB	
PH	8.3	S.U.	SM 4500-H B	06/29/10	HES	
Phenols, total	<0.02	mg/L	EPA 420.4	06/29/10	DRA	
Phosphorus, total (as P)	0.10	mg/L	SM 4500-P E,B5	06/29/10	DMC	
Sulfide	<0.1	mg/L	EPA 376.2	06/30/10	DRA	
Suspended solids, total	<4	mg/L	SM 2540 D	06/29/10	DMC	
Prior. Poll. volatiles	See below		EPA 624	06/29/10	JAR	
Prep, VOA	Completed		EPA 624	06/29/10	JAR	
1,1,1-Trichloroethane	<1	ug/L	EPA 624	06/29/10	JAR	
1,1,2,2-Tetrachloroethane	<1	ug/L	EPA 624	06/29/10	JAR	
1,1,2-Trichloroethane	<1	ug/L	EPA 624	06/29/10	JAR	
1,1-Dichloroethane	<1	ug/L	EPA 624	06/29/10	JAR	
1,1-Dichloroethene	<1	ug/L	EPA 624	06/29/10	JAR	
1,2-Dichlorobenzene	<1	ug/L	EPA 624	06/29/10	JAR	
1,2-Dichloroethane	<1	ug/L	EPA 624	06/29/10	JAR	
1,2-Dichloropropane	<1	ug/L	EPA 624	06/29/10	JAR	
1,3-Dichlorobenzene	<1	ug/L	EPA 624	06/29/10	JAR	
1,4-Dichlorobenzene	<1	ug/L	EPA 624	06/29/10	JAR	
2-Chloroethylvinyl ether	<10	ug/L	EPA 624	06/29/10	JAR	
Acrolein	<20	ug/L	EPA 624	06/29/10	JAR	
Acrylonitrile	<2	ug/L	EPA 624	06/29/10	JAR	
Benzene	<1	ug/L	EPA 624	06/29/10	JAR	
Bromodichloromethane	<1	ug/L	EPA 624	06/29/10	JAR	

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LABORATORY DETAIL REPORT

Client: **CRA Services**

Attest: 
David R. Alkema, Lab Manager

KAR Project No. : **102518**

Date Reported: **06/30/10**

Project

Description: **Analysis of two aqueous samples from 12th St. Landfill (#56913-60).**

Sample ID : **"WW-056913-062910-JV-003"**

Sampled By : **JV of CRA Services**

Date Received : **06/29/10**

Sample Date : **06/29/10**

Sample Type : **aqueous**

Sample Time : **0906**

KAR Sample No. : **102518-01**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Bromoform	<1	ug/L	EPA 624	06/29/10	JAR	
Bromomethane	<1	ug/L	EPA 624	06/29/10	JAR	
Carbon tetrachloride	<1	ug/L	EPA 624	06/29/10	JAR	
Chlorobenzene	<1	ug/L	EPA 624	06/29/10	JAR	
Chloroethane	<1	ug/L	EPA 624	06/29/10	JAR	
Chloroform	<1	ug/L	EPA 624	06/29/10	JAR	
Chloromethane	<1	ug/L	EPA 624	06/29/10	JAR	
Cis-1,3-Dichloropropene	<1	ug/L	EPA 624	06/29/10	JAR	
Dibromochloromethane	<1	ug/L	EPA 624	06/29/10	JAR	
Ethylbenzene	<1	ug/L	EPA 624	06/29/10	JAR	
Methylene chloride	<1	ug/L	EPA 624	06/29/10	JAR	
Tetrachloroethene	<1	ug/L	EPA 624	06/29/10	JAR	
Toluene	<1	ug/L	EPA 624	06/29/10	JAR	
Trans-1,2-Dichloroethene	<1	ug/L	EPA 624	06/29/10	JAR	
Trans-1,3-Dichloropropene	<1	ug/L	EPA 624	06/29/10	JAR	
Trichloroethene	<1	ug/L	EPA 624	06/29/10	JAR	
Trichlorofluoromethane	<1	ug/L	EPA 624	06/29/10	JAR	
Vinyl chloride	<1	ug/L	EPA 624	06/29/10	JAR	
Prep, ECD	Completed		EPA 608	06/29/10	GMB	
PCB	See below		EPA 608	06/29/10	GMB	
PCB Aroclor 1016	<0.2	ug/L	EPA 608	06/29/10	GMB	
PCB Aroclor 1221	<0.2	ug/L	EPA 608	06/29/10	GMB	
PCB Aroclor 1232	<0.2	ug/L	EPA 608	06/29/10	GMB	
PCB Aroclor 1242	<0.2	ug/L	EPA 608	06/29/10	GMB	
PCB Aroclor 1248	<0.2	ug/L	EPA 608	06/29/10	GMB	
PCB Aroclor 1254	<0.2	ug/L	EPA 608	06/29/10	GMB	
PCB Aroclor 1260	<0.2	ug/L	EPA 608	06/29/10	GMB	
PCB Aroclors, total	NA		EPA 608	06/29/10	GMB	
12DCA-D4 (surr spk)	102	% spike recovery	EPA 624	06/29/10	JAR	
BFB (surr spk)	100	% spike recovery	EPA 624	06/29/10	JAR	
Toluene-D8 (surr spk)	106	% spike recovery	EPA 624	06/29/10	JAR	
DCB (pest/PCB surr spk)	77	% spike recovery	EPA 608	06/29/10	GMB	

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LABORATORY DETAIL REPORT

Client: CRA Services

Attest: 
David R. Alkema, Lab Manager

KAR Project No. : 102518

Date Reported: 06/30/10

Project

Description: Analysis of two aqueous samples from 12th St. Landfill (#56913-60).

Sample ID : **"WW-056913-062910-JV-004"**

Sampled By : JV of CRA Services

Date Received : 06/29/10

Sample Date : 06/29/10

Sample Type : aqueous

Sample Time : 0917

KAR Sample No. : 102518-02

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 245.2	06/29/10	DBL	
Prep, metals	Completed		EPA 30xx,200.x	06/29/10	DBL	
Arsenic, total, by ICP	<0.1	mg/L	EPA 200.7	06/29/10	DBL	
Cadmium, total	<0.005	mg/L	EPA 200.7	06/29/10	DBL	
Chromium, total	<0.01	mg/L	EPA 200.7	06/29/10	DBL	
Copper, total	<0.02	mg/L	EPA 200.7	06/29/10	DBL	
Lead, total, by ICP	<0.05	mg/L	EPA 200.7	06/29/10	DBL	
Mercury, total, low level	<0.0002	mg/L	EPA 245.2	06/29/10	DBL	
Nickel, total	<0.02	mg/L	EPA 200.7	06/29/10	DBL	
Silver, total	<0.005	mg/L	EPA 200.7	06/29/10	DBL	
Tin, total	<0.1	mg/L	EPA 200.7	06/29/10	DBL	
Zinc, total	<0.02	mg/L	EPA 200.7	06/29/10	DBL	
COD	<10	mg/L	EPA 410.4	06/29/10	DBL	
Cyanide, total	0.008	mg/L	SM 4500-CN C,E	06/29/10	DRA	Matrix effect observed; result is approximate.
Nitrogen, total kjeldahl	<5	mg/L	EPA 351.2	06/29/10	DRA	
Oil and grease (HEM)	<5	mg/L	EPA 1664	06/29/10	GMB	
PH	8.3	S.U.	SM 4500-H B	06/29/10	HES	
Phenols, total	<0.02	mg/L	EPA 420.4	06/29/10	DRA	
Phosphorus, total (as P)	0.11	mg/L	SM 4500-P E,B5	06/29/10	DMC	
Sulfide	<0.1	mg/L	EPA 376.2	06/30/10	DRA	
Suspended solids, total	<4	mg/L	SM 2540 D	06/29/10	DMC	
Prior. Poll. volatiles	See below		EPA 624	06/29/10	JAR	
Prep, VOA	Completed		EPA 624	06/29/10	JAR	
1,1,1-Trichloroethane	<1	ug/L	EPA 624	06/29/10	JAR	
1,1,2,2-Tetrachloroethane	<1	ug/L	EPA 624	06/29/10	JAR	
1,1,2-Trichloroethane	<1	ug/L	EPA 624	06/29/10	JAR	
1,1-Dichloroethane	<1	ug/L	EPA 624	06/29/10	JAR	
1,1-Dichloroethene	<1	ug/L	EPA 624	06/29/10	JAR	
1,2-Dichlorobenzene	<1	ug/L	EPA 624	06/29/10	JAR	
1,2-Dichloroethane	<1	ug/L	EPA 624	06/29/10	JAR	
1,2-Dichloropropane	<1	ug/L	EPA 624	06/29/10	JAR	
1,3-Dichlorobenzene	<1	ug/L	EPA 624	06/29/10	JAR	
1,4-Dichlorobenzene	<1	ug/L	EPA 624	06/29/10	JAR	
2-Chloroethylvinyl ether	<10	ug/L	EPA 624	06/29/10	JAR	
Acrolein	<20	ug/L	EPA 624	06/29/10	JAR	
Acrylonitrile	<2	ug/L	EPA 624	06/29/10	JAR	
Benzene	<1	ug/L	EPA 624	06/29/10	JAR	
Bromodichloromethane	<1	ug/L	EPA 624	06/29/10	JAR	
Bromoform	<1	nn/l	FPA 624	06/29/10	.JAR	

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LABORATORY DETAIL REPORT

Client: **CRA Services**

Attest: 
David R. Alkema, Lab Manager

KAR Project No. : **102518**

Date Reported: **06/30/10**

Project

Description: *Analysis of two aqueous samples from 12th St. Landfill (#56913-60).*

Sample ID : **"WW-056913-062910-JV-004"**

Sampled By : **JV of CRA Services**

Sample Date : **06/29/10**

Sample Time : **0917**

Date Received : **06/29/10**

Sample Type : **aqueous**

KAR Sample No. : **102518-02**

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Bromomethane	<1	ug/L	EPA 624	06/29/10	JAR	
Carbon tetrachloride	<1	ug/L	EPA 624	06/29/10	JAR	
Chlorobenzene	<1	ug/L	EPA 624	06/29/10	JAR	
Chloroethane	<1	ug/L	EPA 624	06/29/10	JAR	
Chloroform	<1	ug/L	EPA 624	06/29/10	JAR	
Chloromethane	<1	ug/L	EPA 624	06/29/10	JAR	
Cis-1,3-Dichloropropene	<1	ug/L	EPA 624	06/29/10	JAR	
Dibromochloromethane	<1	ug/L	EPA 624	06/29/10	JAR	
Ethylbenzene	<1	ug/L	EPA 624	06/29/10	JAR	
Methylene chloride	<1	ug/L	EPA 624	06/29/10	JAR	
Tetrachloroethene	<1	ug/L	EPA 624	06/29/10	JAR	
Toluene	<1	ug/L	EPA 624	06/29/10	JAR	
Trans-1,2-Dichloroethene	<1	ug/L	EPA 624	06/29/10	JAR	
Trans-1,3-Dichloropropene	<1	ug/L	EPA 624	06/29/10	JAR	
Trichloroethene	<1	ug/L	EPA 624	06/29/10	JAR	
Trichlorofluoromethane	<1	ug/L	EPA 624	06/29/10	JAR	
Vinyl chloride	<1	ug/L	EPA 624	06/29/10	JAR	
Prep, ECD	Completed		EPA 608	06/29/10	GMB	
PCB	See below		EPA 608	06/29/10	GMB	
PCB Aroclor 1016	<0.2	ug/L	EPA 608	06/29/10	GMB	
PCB Aroclor 1221	<0.2	ug/L	EPA 608	06/29/10	GMB	
PCB Aroclor 1232	<0.2	ug/L	EPA 608	06/29/10	GMB	
PCB Aroclor 1242	<0.2	ug/L	EPA 608	06/29/10	GMB	
PCB Aroclor 1248	<0.2	ug/L	EPA 608	06/29/10	GMB	
PCB Aroclor 1254	<0.2	ug/L	EPA 608	06/29/10	GMB	
PCB Aroclor 1260	<0.2	ug/L	EPA 608	06/29/10	GMB	
PCB Aroclors, total	NA		EPA 608	06/29/10	GMB	
12DCA-D4 (surr spk)	104	% spike recovery	EPA 624	06/29/10	JAR	
BFB (surr spk)	98	% spike recovery	EPA 624	06/29/10	JAR	
Toluene-D8 (surr spk)	107	% spike recovery	EPA 624	06/29/10	JAR	
DCB (pest/PCB surr spk)	75	% spike recovery	EPA 608	06/29/10	GMB	

KAR Laboratories, Inc.

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LABORATORY DETAIL REPORT

Client: **CRA Services**

Attest: 
David R. Alkema, Lab Manager

KAR Project No. : **102518**

Date Reported: **06/30/10**

Project

Description: **Analysis of two aqueous samples from 12th St. Landfill (#56913-60).**

Sample ID : Laboratory Method Blank						
Sampled By :			Date Received : 06/29/10			
Sample Date :			Sample Type : LMB			
Sample Time :			KAR Sample No. : 102518-03			
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 245.2	06/29/10	DBL	
Prep, metals	Completed		EPA 30xx,200.x	06/29/10	DBL	
Arsenic, total, by ICP	<0.1	mg/L	EPA 200.7	06/29/10	DBL	
Cadmium, total	<0.005	mg/L	EPA 200.7	06/29/10	DBL	
Chromium, total	<0.01	mg/L	EPA 200.7	06/29/10	DBL	
Copper, total	<0.02	mg/L	EPA 200.7	06/29/10	DBL	
Lead, total, by ICP	<0.05	mg/L	EPA 200.7	06/29/10	DBL	
Mercury, total, low level	<0.0002	mg/L	EPA 245.2	06/29/10	DBL	
Nickel, total	<0.02	mg/L	EPA 200.7	06/29/10	DBL	
Silver, total	<0.005	mg/L	EPA 200.7	06/29/10	DBL	
Tin, total	<0.1	mg/L	EPA 200.7	06/29/10	DBL	
Zinc, total	<0.02	mg/L	EPA 200.7	06/29/10	DBL	
COD	<10	mg/L	EPA 410.4	06/29/10	DBL	
Cyanide, total	<0.005	mg/L	SM 4500-CN C,E	06/29/10	DRA	
Nitrogen, total kjeldahl	<5	mg/L	EPA 351.2	06/29/10	DRA	
Oil and grease (HEM)	<5	mg/L	EPA 1664	06/29/10	GMB	
Phenols, total	<0.02	mg/L	EPA 420.4	06/29/10	DRA	
Phosphorus, total (as P)	<0.02	mg/L	SM 4500-P E,B5	06/29/10	DMC	
Sulfide	<0.1	mg/L	EPA 376.2	06/30/10	DRA	
Suspended solids, total	<4	mg/L	SM 2540 D	06/29/10	DMC	
Prior. Poll. volatiles	See below		EPA 624	06/29/10	JAR	
Prep, VOA	Completed		EPA 624	06/29/10	JAR	
1,1,1-Trichloroethane	<1	ug/L	EPA 624	06/29/10	JAR	
1,1,2,2-Tetrachloroethane	<1	ug/L	EPA 624	06/29/10	JAR	
1,1,2-Trichloroethane	<1	ug/L	EPA 624	06/29/10	JAR	
1,1-Dichloroethane	<1	ug/L	EPA 624	06/29/10	JAR	
1,1-Dichloroethene	<1	ug/L	EPA 624	06/29/10	JAR	
1,2-Dichlorobenzene	<1	ug/L	EPA 624	06/29/10	JAR	
1,2-Dichloroethane	<1	ug/L	EPA 624	06/29/10	JAR	
1,2-Dichloropropane	<1	ug/L	EPA 624	06/29/10	JAR	
1,3-Dichlorobenzene	<1	ug/L	EPA 624	06/29/10	JAR	
1,4-Dichlorobenzene	<1	ug/L	EPA 624	06/29/10	JAR	
2-Chloroethylvinyl ether	<10	ug/L	EPA 624	06/29/10	JAR	
Acrolein	<20	ug/L	EPA 624	06/29/10	JAR	
Acrylonitrile	<2	ug/L	EPA 624	06/29/10	JAR	
Benzene	<1	ug/L	EPA 624	06/29/10	JAR	
Bromodichloromethane	<1	ug/L	EPA 624	06/29/10	JAR	
Bromoform	<1	ug/L	EPA 624	06/29/10	JAR	
Bromomethane	<1	ug/L	EPA 624	06/29/10	JAR	

KAR Laboratories, Inc.

(269) 381-9666

LABORATORY DETAIL REPORT

Client: **CRA Services**

Attest: 
David R. Alkema, Lab Manager

KAR Project No. : **102518**

Date Reported: **06/30/10**

Project

Description: **Analysis of two aqueous samples from 12th St. Landfill (#56913-60).**

Sample ID : Laboratory Method Blank						
Sampled By :			Date Received : 06/29/10			
Sample Date :			Sample Type : LMB			
Sample Time :			KAR Sample No. : 102518-03			
Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Carbon tetrachloride	<1	ug/L	EPA 624	06/29/10	JAR	
Chlorobenzene	<1	ug/L	EPA 624	06/29/10	JAR	
Chloroethane	<1	ug/L	EPA 624	06/29/10	JAR	
Chloroform	<1	ug/L	EPA 624	06/29/10	JAR	
Chloromethane	<1	ug/L	EPA 624	06/29/10	JAR	
Cis-1,3-Dichloropropene	<1	ug/L	EPA 624	06/29/10	JAR	
Dibromochloromethane	<1	ug/L	EPA 624	06/29/10	JAR	
Ethylbenzene	<1	ug/L	EPA 624	06/29/10	JAR	
Methylene chloride	<1	ug/L	EPA 624	06/29/10	JAR	
Tetrachloroethene	<1	ug/L	EPA 624	06/29/10	JAR	
Toluene	<1	ug/L	EPA 624	06/29/10	JAR	
Trans-1,2-Dichloroethene	<1	ug/L	EPA 624	06/29/10	JAR	
Trans-1,3-Dichloropropene	<1	ug/L	EPA 624	06/29/10	JAR	
Trichloroethene	<1	ug/L	EPA 624	06/29/10	JAR	
Trichlorofluoromethane	<1	ug/L	EPA 624	06/29/10	JAR	
Vinyl chloride	<1	ug/L	EPA 624	06/29/10	JAR	
Prep, ECD	Completed		EPA 608	06/29/10	GMB	
PCB	See below		EPA 608	06/29/10	GMB	
PCB Aroclor 1016	<0.2	ug/L	EPA 608	06/29/10	GMB	
PCB Aroclor 1221	<0.2	ug/L	EPA 608	06/29/10	GMB	
PCB Aroclor 1232	<0.2	ug/L	EPA 608	06/29/10	GMB	
PCB Aroclor 1242	<0.2	ug/L	EPA 608	06/29/10	GMB	
PCB Aroclor 1248	<0.2	ug/L	EPA 608	06/29/10	GMB	
PCB Aroclor 1254	<0.2	ug/L	EPA 608	06/29/10	GMB	
PCB Aroclor 1260	<0.2	ug/L	EPA 608	06/29/10	GMB	
PCB Aroclors, total	NA		EPA 608	06/29/10	GMB	
12DCA-D4 (surr spk)	99	% spike recovery	EPA 624	06/29/10	JAR	
BFB (surr spk)	97	% spike recovery	EPA 624	06/29/10	JAR	
Toluene-D8 (surr spk)	104	% spike recovery	EPA 624	06/29/10	JAR	
DCB (pest/PCB surr spk)	69	% spike recovery	EPA 608	06/29/10	GMB	

KAR Laboratories, Inc.

(269) 381-9666

ATTACHMENT B

ADDITIONAL COMPACTION TEST RESULTS - JUNE 2010



INSPCSOL ENGINEERING, INC. 14496 Sheldon Road, Suite 200, Plymouth, MI 48170, Tel. : (734) 453-5123, Fax : (734) 453-5201
www.inspcsol.com

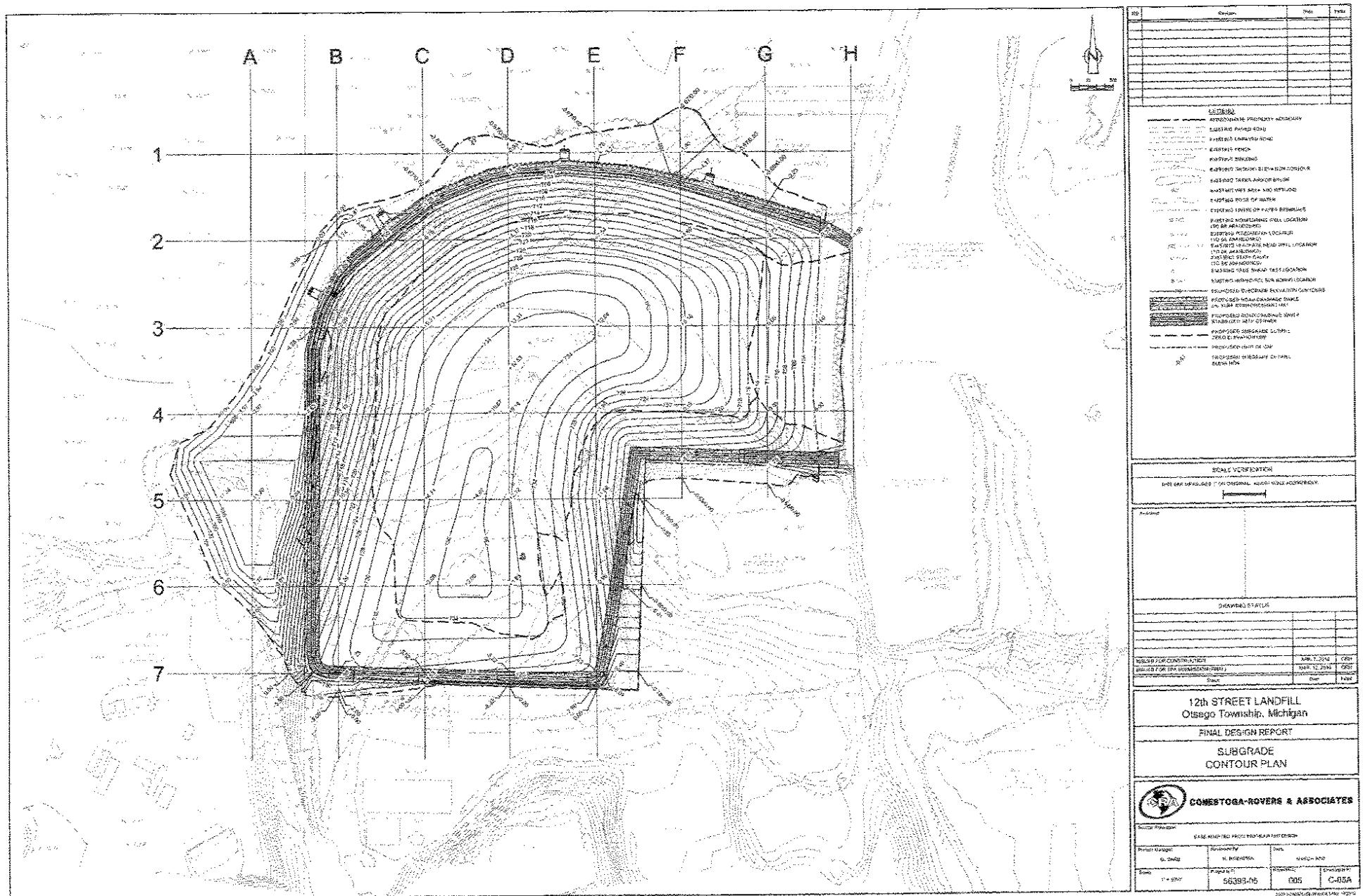
MEMO

TO : Greg Carli, P.E. **DATE :** July 9, 2010

FROM : Michael D. Stieler, P.E. **REFERENCE # :** 056393

SUBJECT : In-Place Density Test Results

Attached are the In-Place Density Test Results (Nos. 1 through 12) for the 12th Street Landfill Project (Project Number 050393) for May 24 & 27, 2010 and June 4, 2010. Also attached is the Subgrade Contour Plan Sheet to reference In-Place Density Test locations.





IN-PLACE DENSITY TEST

PROJECT NO: 056393

DATE: 5-24-10

PROJECT: 12TH ST LANDFILL

MOISTURE STANDARD: 66.3

CLIENT:

DAILY MOISTURE STANDARD: 66.0

DENSITY STANDARD: 2502

DAILY DENSITY STANDARD: 2437

GAUGE NO.: 31097

TEST NO.	TEST LOCATION	ELEVATION OR LIFT NO.	SAMPLE ID	LAB		FIELD				REQUIRED COMPACTION %	NOTES
				MAXIMUM DRY UNIT WEIGHT (PCF)	OPTIMUM WATER CONTENT %	IN-PLACE WET UNIT WEIGHT (PCF)	IN-PLACE WATER CONTENT %	IN-PLACE DRY UNIT WEIGHT (PCF)	COMPACTION %		
1	3-D	1	1	56.5	10.0	85.2	63.4	52.1	92.2	90	BALLOON TEST
2	5/6-C	2	3	97.5	18.9	109.3	14.0	95.9	98.3	1	5-27-10
3	5/6-C	3	3	97.5	18.9	104.6	15.8	90.3	92.6		
4	5/6 BC	4	3	97.5	18.9	102.0	14.9	88.8	91.0		
5	6-D	1	3	97.5	18.9	104.7	14.8	91.2	93.5		6-4-10
6	5.5-D	1	3	97.5	18.9	110.3	14.9	96.0	98.4		DS 2410 MS 655
7	5-D	1	3	97.5	18.9	112.0	15.8	96.7	99.2		
8	5-E	2	3	97.5	18.9	109.2	16.1	94.0	96.4		
9	5.5-E	2	3	97.5	18.9	112.0	17.8	95.0	97.5		
10	4-E	1	3	97.5	18.9	114.9	25.2	91.8	94.1		

NOTES:

PREPARED BY: Thomas G. Johnson

CHECKED BY:



IN-PLACE DENSITY TEST

PROJECT NO.: 056393

DATE: 6-4-10

PROJECT: 6TH ST LANDFILL

MOISTURE STANDARD: 66.3

DAILY MOISTURE STANDARD: 65%

卷之三

DENSITY STANDARD: 2502

DAILY DENSITY STANDARD: 24/10

GAUGE NO.: 31097

NOTES

PREPARED BY:

CHECKED BY

ATTACHMENT C

ANALYTICAL RESULTS FOR GREY PIECES OF PAPER RESIDUALS

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004

Service Request: K1005929

Cover Page - Organic Analysis Data Package
Polychlorinated Biphenyls (PCBs)

Sample Name	Lab Code	Date Collected	Date Received
SO-056393-060610-RP-001	K1005929-001	06/04/2010	06/09/2010
SO-056393-060610-RP-001MS	KWG1005611-1	06/04/2010	06/09/2010
SO-056393-060610-RP-001DMS	KWG1005611-2	06/04/2010	06/09/2010

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____

Name: _____

Date: _____

Title: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004
Sample Matrix: Soil

Service Request: K1005929
Date Collected: 06/04/2010
Date Received: 06/09/2010

Polychlorinated Biphenyls (PCBs)

Sample Name:	SO-056393-060610-RP-001	Units:	ug/Kg
Lab Code:	K1005929-001	Basis:	Dry
Extraction Method:	EPA 3550M	Level:	Low
Analysis Method:	8082		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND U	240	31	10	06/09/10	06/10/10	KWG1005611	
Aroclor 1221	ND U	480	31	10	06/09/10	06/10/10	KWG1005611	
Aroclor 1232	ND U	240	31	10	06/09/10	06/10/10	KWG1005611	
Aroclor 1242	ND U	240	31	10	06/09/10	06/10/10	KWG1005611	
Aroclor 1248	6800 D	240	31	10	06/09/10	06/10/10	KWG1005611	
Aroclor 1254	ND U	240	31	10	06/09/10	06/10/10	KWG1005611	
Aroclor 1260	ND U	240	31	10	06/09/10	06/10/10	KWG1005611	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	94	35-133	06/10/10	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004
Sample Matrix: Soil

Service Request: K1005929
Date Collected: NA
Date Received: NA

Polychlorinated Biphenyls (PCBs)

Sample Name:	Method Blank	Units:	ug/Kg
Lab Code:	KWG1005611-4	Basis:	Dry
Extraction Method:	EPA 3550M	Level:	Low
Analysis Method:	8082		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND U	5.0	1.3	1	06/09/10	06/09/10	KWG1005611	
Aroclor 1221	ND U	10	1.3	1	06/09/10	06/09/10	KWG1005611	
Aroclor 1232	ND U	5.0	1.3	1	06/09/10	06/09/10	KWG1005611	
Aroclor 1242	ND U	5.0	1.3	1	06/09/10	06/09/10	KWG1005611	
Aroclor 1248	ND U	5.0	1.3	1	06/09/10	06/09/10	KWG1005611	
Aroclor 1254	ND U	5.0	1.3	1	06/09/10	06/09/10	KWG1005611	
Aroclor 1260	ND U	5.0	1.3	1	06/09/10	06/09/10	KWG1005611	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	103	35-133	06/09/10	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004
Sample Matrix: Soil

Service Request: K1005929**Surrogate Recovery Summary
Polychlorinated Biphenyls (PCBs)**

Extraction Method: EPA 3550M
Analysis Method: 8082

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1
SO-056393-060610-RP-001	K1005929-001	94 D
Method Blank	KWG1005611-4	103
SO-056393-060610-RP-001MS	KWG1005611-1	101 D
SO-056393-060610-RP-001DMS	KWG1005611-2	94 D
Lab Control Sample	KWG1005611-3	99

Surrogate Recovery Control Limits (%)

Sur1 = Decachlorobiphenyl 35-133

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Conestoga-Rovers & Associates, Incorporated
Project: 12th Street/056393-07-004
Sample Matrix: Soil

Service Request: K1005929
Date Extracted: 06/09/2010
Date Analyzed: 06/10/2010

Matrix Spike/Duplicate Matrix Spike Summary Polychlorinated Biphenyls (PCBs)

Sample Name: SO-056393-060610-RP-001 **Units:** ug/Kg
Lab Code: K1005929-001 **Basis:** Dry
Extraction Method: EPA 3550M **Level:** Low
Analysis Method: 8082 **Extraction Lot:** KWG1005611

Analyte Name	Sample Result	SO-056393-060610-RP-001			SO-056393-060610-RP-001			%Rec Limits	RPD	RPD Limit			
		MS			DMS								
		KWG1005611-1			KWG1005611-2								
		Matrix Spike			Duplicate Matrix Spike								
Aroclor 1016	ND	7480	472	1584 *	5520	470	1174 *	27-174	30	40			
Aroclor 1260	ND	1590	472	336 *	1090	470	232 *	20-185	37	40			

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004
Sample Matrix: Soil

Service Request: K1005929
Date Extracted: 06/09/2010
Date Analyzed: 06/09/2010

Lab Control Spike Summary
Polychlorinated Biphenyls (PCBs)

Extraction Method: EPA 3550M
Analysis Method: 8082

Units: ug/Kg
Basis: Dry
Level: Low

Extraction Lot: KWG1005611

Lab Control Sample

KWG1005611-3

Lab Control Spike

Analyte Name	Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
Aroclor 1016	173	200	87	48-121
Aroclor 1260	199	200	100	53-129

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004
Sample Matrix: Soil

Service Request: K1005929
Date Extracted: 06/09/2010
Date Analyzed: 06/09/2010
Time Analyzed: 21:01

Method Blank Summary
Polychlorinated Biphenyls (PCBs)

Sample Name: Method Blank
Lab Code: KWG1005611-4
Extraction Method: EPA 3550M
Analysis Method: 8082

File ID: J:\GC09\DATA\060910A.B\0609F020.D
Instrument ID: GC09.i
Level: Low
Extraction Lot: KWG1005611

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1005611-3	J:\GC09\DATA\060910A.B\0609F021.D	06/09/10	21:27
SO-056393-060610-RP-001	K1005929-001	J:\GC09\DATA\060910A.B\0609FD28.D	06/10/10	00:30
SO-056393-060610-RP-001MS	KWG1005611-1	J:\GC09\DATA\060910A.B\0609FD29.D	06/10/10	00:56
SO-056393-060610-RP-001DMS	KWG1005611-2	J:\GC09\DATA\060910A.B\0609FD30.D	06/10/10	01:22

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004
Sample Matrix: Soil

Service Request: K1005929
Date Extracted: 06/09/2010
Date Analyzed: 06/09/2010
Time Analyzed: 21:27

**Lab Control Sample Summary
Polychlorinated Biphenyls (PCBs)**

Sample Name: Lab Control Sample **File ID:** J:\GC09\DATA\060910A.B\0609F021.D
Lab Code: KWG1005611-3 **Instrument ID:** GC09.i
Extraction Method: EPA 3550M **Level:** Low
Analysis Method: 8082 **Extraction Lot:** KWG1005611

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG1005611-4	J:\GC09\DATA\060910A.B\0609F020.D	06/09/10	21:01
SO-056393-060610-RP-001	K1005929-001	J:\GC09\DATA\060910A.B\0609FD28.D	06/10/10	00:30
SO-056393-060610-RP-001MS	KWG1005611-1	J:\GC09\DATA\060910A.B\0609FD29.D	06/10/10	00:56
SO-056393-060610-RP-001DMS	KWG1005611-2	J:\GC09\DATA\060910A.B\0609FD30.D	06/10/10	01:22

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004

Service Request: K1005929
Calibration Date: 05/27/2010
Date Analyzed: 05/28/2010

Second Source Calibration Verification
Polychlorinated Biphenyls (PCBs)

Calibration Type:	External Standard	Calibration ID:	CAL9510
Analysis Method:	8082	Units:	ng/mL
File ID:	\Cash1\Acquadata\GC09\data\052710A.B\0527F052.D \Cash1\Acquadata\GC09\data\052710A.B\0527F053.D \Cash1\Acquadata\GC09\data\052710A.B\0527F054.D \Cash1\Acquadata\GC09\data\052710A.B\0527F055.D \Cash1\Acquadata\GC09\data\052710A.B\0527F056.D \Cash1\Acquadata\GC09\data\052710A.B\0527F057.D \Cash1\Acquadata\GC09\data\052710A.B\0527F058.D \Cash1\Acquadata\GC09\data\052710A.B\0527F059.D \Cash1\Acquadata\GC09\data\052710A.B\0527F060.D		Column ID: DB-35MS

Analyte Name	Expected	Result	Average	SSV	%D	%Drift	Criteria	Curve Fit
			RF	RF				
Aroclor 1016 {1}	1000	1100	142	160	13	NA	± 100 %	AverageRF
Aroclor 1016 {2}	1000	1200	286	334	17	NA	± 100 %	AverageRF
Aroclor 1016 {3}	1000	1100	243	257	6	NA	± 100 %	AverageRF
Aroclor 1016 {4}	1000	1100	207	224	8	NA	± 100 %	AverageRF
Aroclor 1016 {5}	1000	1300	154	198	29	NA	± 100 %	AverageRF
Aroclor 1016	1000	1100	NA	NA	NA	-14	± 15 %	NA
Aroclor 1260 {1}	1000	950	302	287	-5	NA	± 100 %	AverageRF
Aroclor 1260 {2}	1000	1000	370	377	2	NA	± 100 %	AverageRF
Aroclor 1260 {3}	1000	990	453	450	-1	NA	± 100 %	AverageRF
Aroclor 1260 {4}	1000	860	433	374	-14	NA	± 100 %	AverageRF
Aroclor 1260 {5}	1000	1200	571	671	18	NA	± 100 %	AverageRF
Aroclor 1260	1000	1000	NA	NA	NA	0	± 15 %	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004

Service Request: K1005929
Calibration Date: 05/27/2010
Date Analyzed: 05/28/2010

Second Source Calibration Verification
Polychlorinated Biphenyls (PCBs)

Calibration Type:	External Standard	Calibration ID:	CAL9510
Analysis Method:	8082	Units:	ng/mL
File ID:	\Cash1\Acquadata\GC09\data\052710A_r.b\0527R052.D \Cash1\Acquadata\GC09\data\052710A_r.b\0527R053.D \Cash1\Acquadata\GC09\data\052710A_r.b\0527R054.D \Cash1\Acquadata\GC09\data\052710A_r.b\0527R055.D \Cash1\Acquadata\GC09\data\052710A_r.b\0527R056.D \Cash1\Acquadata\GC09\data\052710A_r.b\0527R057.D \Cash1\Acquadata\GC09\data\052710A_r.b\0527R058.D \Cash1\Acquadata\GC09\data\052710A_r.b\0527R059.D \Cash1\Acquadata\GC09\data\052710A_r.b\0527R060.D	Column ID:	DB-XLB

Analyte Name	Expected	Result	Average	SSV	%D	%Drift	Criteria	Curve Fit
			RF	RF				
Aroclor 1016 {1}	1000	1100	183	195	6	NA	± 100 %	AverageRF
Aroclor 1016 {2}	1000	1000	323	326	1	NA	± 100 %	AverageRF
Aroclor 1016 {3}	1000	1100	158	181	15	NA	± 100 %	AverageRF
Aroclor 1016 {4}	1000	1000	131	137	5	NA	± 100 %	AverageRF
Aroclor 1016 {5}	1000	1100	147	163	10	NA	± 100 %	AverageRF
Aroclor 1016	1000	1100	NA	NA	NA	-7	± 15 %	NA
Aroclor 1260 {1}	1000	1000	277	280	1	NA	± 100 %	AverageRF
Aroclor 1260 {2}	1000	980	297	292	-2	NA	± 100 %	AverageRF
Aroclor 1260 {3}	1000	910	372	339	-9	NA	± 100 %	AverageRF
Aroclor 1260 {4}	1000	1200	235	282	20	NA	± 100 %	AverageRF
Aroclor 1260 {5}	1000	1200	440	506	15	NA	± 100 %	AverageRF
Aroclor 1260	1000	1100	NA	NA	NA	-5	± 15 %	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004

Service Request: K1005929
Date Analyzed: 06/09/2010

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type:	External Standard	Calibration Date:	05/27/2010
Analysis Method:	8082	Calibration ID:	CAL9510
File ID:	\\CASH1\ACQUDATA\GC09\DATA\060910A.B\0609F017.D	Analysis Lot:	KWG1005632
		Units:	ng/mL
		Column ID:	DB-35MS

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	100	96	5900	5670	-4	NA	± 15 %	AverageRF
Aroclor 1016 {1}	1000	1000	142	143	1	NA	± 100 %	AverageRF
Aroclor 1016 {2}	1000	1100	286	301	5	NA	± 100 %	AverageRF
Aroclor 1016 {3}	1000	990	243	242	-1	NA	± 100 %	AverageRF
Aroclor 1016 {4}	1000	960	207	200	-4	NA	± 100 %	AverageRF
Aroclor 1016 {5}	1000	1000	154	157	2	NA	± 100 %	AverageRF
Aroclor 1016	1000	1000	NA	NA	NA	1	± 15 %	NA
Aroclor 1260 {1}	1000	920	302	277	-8	NA	± 100 %	AverageRF
Aroclor 1260 {2}	1000	920	370	339	-8	NA	± 100 %	AverageRF
Aroclor 1260 {3}	1000	920	453	416	-8	NA	± 100 %	AverageRF
Aroclor 1260 {4}	1000	960	433	417	-4	NA	± 100 %	AverageRF
Aroclor 1260 {5}	1000	970	571	557	-3	NA	± 100 %	AverageRF
Aroclor 1260	1000	940	NA	NA	NA	-6	± 15 %	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004

Service Request: K1005929
Date Analyzed: 06/09/2010

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type:	External Standard	Calibration Date:	05/27/2010
Analysis Method:	8082	Calibration ID:	CAL9510
File ID:	\ CASH1\ACQUDATA\GC09\DATA\060910A_R.B\0609R017.D		Analysis Lot: KWG1005632
			Units: ng/mL
			Column ID: DB-XLB

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	100	98	5130	5060	-2	NA	± 15 %	AverageRF
Aroclor 1016 {1}	1000	960	183	177	-4	NA	± 100 %	AverageRF
Aroclor 1016 {2}	1000	950	323	307	-5	NA	± 100 %	AverageRF
Aroclor 1016 {3}	1000	1100	158	168	6	NA	± 100 %	AverageRF
Aroclor 1016 {4}	1000	1000	131	134	2	NA	± 100 %	AverageRF
Aroclor 1016 {5}	1000	1000	147	150	2	NA	± 100 %	AverageRF
Aroclor 1016	1000	1000	NA	NA	NA	0	± 15 %	NA
Aroclor 1260 {1}	1000	960	277	267	-4	NA	± 100 %	AverageRF
Aroclor 1260 {2}	1000	950	297	281	-5	NA	± 100 %	AverageRF
Aroclor 1260 {3}	1000	970	372	360	-3	NA	± 100 %	AverageRF
Aroclor 1260 {4}	1000	1000	235	243	3	NA	± 100 %	AverageRF
Aroclor 1260 {5}	1000	980	440	429	-2	NA	± 100 %	AverageRF
Aroclor 1260	1000	980	NA	NA	NA	-2	± 15 %	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004

Service Request: K1005929
Date Analyzed: 06/10/2010

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type:	External Standard	Calibration Date:	05/27/2010
Analysis Method:	8082	Calibration ID:	CAL9510
File ID:	\\CASH1\ACQUDATA\GC09\DATA\060910A.B\0609F027.D	Analysis Lot:	KWG1005632
		Units:	ng/mL
		Column ID:	DB-35MS

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	100	94	5900	5530	-6	NA	± 15 %	AverageRF
Aroclor 1016 {1}	1000	950	142	134	-5	NA	± 100 %	AverageRF
Aroclor 1016 {2}	1000	980	286	281	-2	NA	± 100 %	AverageRF
Aroclor 1016 {3}	1000	890	243	216	-11	NA	± 100 %	AverageRF
Aroclor 1016 {4}	1000	910	207	189	-9	NA	± 100 %	AverageRF
Aroclor 1016 {5}	1000	970	154	150	-3	NA	± 100 %	AverageRF
Aroclor 1016	1000	940	NA	NA	NA	-6	± 15 %	NA
Aroclor 1260 {1}	1000	870	302	262	-13	NA	± 100 %	AverageRF
Aroclor 1260 {2}	1000	860	370	317	-14	NA	± 100 %	AverageRF
Aroclor 1260 {3}	1000	860	453	390	-14	NA	± 100 %	AverageRF
Aroclor 1260 {4}	1000	920	433	400	-8	NA	± 100 %	AverageRF
Aroclor 1260 {5}	1000	950	571	543	-5	NA	± 100 %	AverageRF
Aroclor 1260	1000	890	NA	NA	NA	-11	± 15 %	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004

Service Request: K1005929
Date Analyzed: 06/10/2010

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type:	External Standard	Calibration Date:	05/27/2010
Analysis Method:	8082	Calibration ID:	CAL9510
File ID:	\\CASH1\ACQUDATA\GC09\DATA\060910A_R.B\0609R027.D	Analysis Lot:	KWG1005632
		Units:	ng/mL
		Column ID:	DB-XLB

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	100	98	5130	5050	-2	NA	± 15 %	AverageRF
Aroclor 1016 {1}	1000	950	183	173	-5	NA	± 100 %	AverageRF
Aroclor 1016 {2}	1000	920	323	299	-8	NA	± 100 %	AverageRF
Aroclor 1016 {3}	1000	1000	158	163	3	NA	± 100 %	AverageRF
Aroclor 1016 {4}	1000	980	131	128	-2	NA	± 100 %	AverageRF
Aroclor 1016 {5}	1000	980	147	145	-2	NA	± 100 %	AverageRF
Aroclor 1016	1000	970	NA	NA	NA	-3	± 15 %	NA
Aroclor 1260 {1}	1000	940	277	262	-6	NA	± 100 %	AverageRF
Aroclor 1260 {2}	1000	930	297	276	-7	NA	± 100 %	AverageRF
Aroclor 1260 {3}	1000	970	372	361	-3	NA	± 100 %	AverageRF
Aroclor 1260 {4}	1000	1000	235	242	3	NA	± 100 %	AverageRF
Aroclor 1260 {5}	1000	980	440	431	-2	NA	± 100 %	AverageRF
Aroclor 1260	1000	970	NA	NA	NA	-3	± 15 %	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004

Service Request: K1005929
Date Analyzed: 06/10/2010

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type:	External Standard	Calibration Date:	05/27/2010
Analysis Method:	8082	Calibration ID:	CAL9510
File ID:	\\CASH1\ACQUDATA\GC09\DATA\060910A.B\0609FD33.D	Analysis Lot:	KWG1005632
		Units:	ng/mL
		Column ID:	DB-35MS

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	100	96	5900	5700	-4	NA	± 15 %	AverageRF
Aroclor 1016 {1}	1000	970	142	138	-3	NA	± 100 %	AverageRF
Aroclor 1016 {2}	1000	1000	286	295	3	NA	± 100 %	AverageRF
Aroclor 1016 {3}	1000	960	243	233	-4	NA	± 100 %	AverageRF
Aroclor 1016 {4}	1000	960	207	199	-4	NA	± 100 %	AverageRF
Aroclor 1016 {5}	1000	1000	154	158	2	NA	± 100 %	AverageRF
Aroclor 1016	1000	990	NA	NA	NA	-1	± 15 %	NA
Aroclor 1260 {1}	1000	910	302	274	-9	NA	± 100 %	AverageRF
Aroclor 1260 {2}	1000	900	370	334	-10	NA	± 100 %	AverageRF
Aroclor 1260 {3}	1000	910	453	412	-9	NA	± 100 %	AverageRF
Aroclor 1260 {4}	1000	980	433	423	-2	NA	± 100 %	AverageRF
Aroclor 1260 {5}	1000	990	571	565	-1	NA	± 100 %	AverageRF
Aroclor 1260	1000	940	NA	NA	NA	-6	± 15 %	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004

Service Request: K1005929
Date Analyzed: 06/10/2010

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type:	External Standard	Calibration Date:	05/27/2010
Analysis Method:	8082	Calibration ID:	CAL9510
File ID:	\\CASH1\ACQUDATA\GC09\DATA\060910A_R.B\0609RD33.D	Analysis Lot:	KWG1005632
		Units:	ng/mL
		Column ID:	DB-XLB

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	100	100	5130	5180	1	NA	± 15 %	AverageRF
Aroclor 1016 {1}	1000	970	183	177	-3	NA	± 100 %	AverageRF
Aroclor 1016 {2}	1000	950	323	306	-5	NA	± 100 %	AverageRF
Aroclor 1016 {3}	1000	1100	158	167	6	NA	± 100 %	AverageRF
Aroclor 1016 {4}	1000	1000	131	133	2	NA	± 100 %	AverageRF
Aroclor 1016 {5}	1000	1000	147	148	0	NA	± 100 %	AverageRF
Aroclor 1016	1000	1000	NA	NA	NA	0	± 15 %	NA
Aroclor 1260 {1}	1000	970	277	268	-3	NA	± 100 %	AverageRF
Aroclor 1260 {2}	1000	970	297	287	-3	NA	± 100 %	AverageRF
Aroclor 1260 {3}	1000	990	372	370	-1	NA	± 100 %	AverageRF
Aroclor 1260 {4}	1000	1100	235	250	6	NA	± 100 %	AverageRF
Aroclor 1260 {5}	1000	1000	440	442	1	NA	± 100 %	AverageRF
Aroclor 1260	1000	1000	NA	NA	NA	0	± 15 %	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004

Service Request: K1005929

Analysis Run Log
Polychlorinated Biphenyls (PCBs)

Analysis Method: 8082**Analysis Lot:** KWG1005632**Instrument ID:** GC09.i**Column:** DB-35MS

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0609F016.D	Instrument Blank	KWG1005632-1	6/9/2010	19:16		6/9/2010	19:16
0609F017.D	Continuing Calibration Verification	KWG1005632-2	6/9/2010	19:42		6/9/2010	19:42
0609F018.D	ZZZZZZ	ZZZZZZ	6/9/2010	20:09		6/9/2010	20:09
0609F019.D	ZZZZZZ	ZZZZZZ	6/9/2010	20:35		6/9/2010	20:35
0609F020.D	Method Blank	KWG1005611-4	6/9/2010	21:01		6/9/2010	21:01
0609F021.D	Lab Control Sample	KWG1005611-3	6/9/2010	21:27		6/9/2010	21:27
0609F026.D	Instrument Blank	KWG1005632-3	6/9/2010	23:37		6/9/2010	23:37
0609F027.D	Continuing Calibration Verification	KWG1005632-4	6/10/2010	00:04		6/10/2010	00:04
0609FD28.D	SO-056393-060610-RP-001	K1005929-001	6/10/2010	00:30		6/10/2010	00:30
0609FD29.D	SO-056393-060610-RP-001MS	KWG1005611-1	6/10/2010	00:56		6/10/2010	00:56
0609FD30.D	SO-056393-060610-RP-001DMS	KWG1005611-2	6/10/2010	01:22		6/10/2010	01:22
0609FD32.D	Instrument Blank	KWG1005632-5	6/10/2010	02:14		6/10/2010	02:14
0609FD33.D	Continuing Calibration Verification	KWG1005632-6	6/10/2010	02:40		6/10/2010	02:40
0609F028.D	ZZZZZZ	ZZZZZZ	6/10/2010	03:06		6/10/2010	03:06
0609F029.D	ZZZZZZ	ZZZZZZ	6/10/2010	03:32		6/10/2010	03:32
0609F030.D	ZZZZZZ	ZZZZZZ	6/10/2010	03:58		6/10/2010	03:58
0609F031.D	ZZZZZZ	ZZZZZZ	6/10/2010	04:24		6/10/2010	04:24
0609F033.D	Instrument Blank	KWG1005632-7	6/10/2010	05:17		6/10/2010	05:17
0609F034.D	Continuing Calibration Verification	KWG1005632-8	6/10/2010	05:43		6/10/2010	05:43

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004
Sample Matrix: Soil

Service Request: K1005929
Date Extracted: 06/09/2010

Extraction Prep Log
Polychlorinated Biphenyls (PCBs)

Extraction Method: EPA 3550M
Analysis Method: 8082

Extraction Lot: KWG1005611
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
SO-056393-060610-RP-001	K1005929-001	06/04/10	06/09/10	40.06g	4mL	21.1	
Method Blank	KWG1005611-4	NA	NA	40.33g	4mL	NA	
SO-056393-060610-RP-001M	KWG1005611-1	06/04/10	06/09/10	40.16g	4mL	21.1	
SO-056393-060610-RP-001D	KWG1005611-2	06/04/10	06/09/10	40.33g	4mL	21.1	
Lab Control Sample	KWG1005611-3	NA	NA	20.00g	4mL	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

COLUMBIA ANALYTICAL SERVICES, INC.

Confirmation Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004
Sample Matrix: Soil

Service Request: K1005929
Date Collected: 06/04/2010
Date Received: 06/09/2010
Date Extracted: 06/09/2010

Polychlorinated Biphenyls (PCBs)

Sample Name: SO-056393-060610-RP-001

Units: ug/Kg

Lab Code: K1005929-001

Basis: Dry

Extraction Method: EPA 3550M

Level: Low

Analysis Method: 8082

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Aroclor 1248	240	31	6800	5700	17.6	D	10	06/10/10

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004
Sample Matrix: Soil

Service Request: K1005929

**Surrogate Recovery Summary
Polychlorinated Biphenyls (PCBs)**

Extraction Method: EPA 3550M
Analysis Method: 8082

Units: PERCENT
Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>
SO-056393-060610-RP-001	K1005929-001	94 D
Method Blank	KWG1005611-4	103
SO-056393-060610-RP-001MS	KWG1005611-1	101 D
SO-056393-060610-RP-001DMS	KWG1005611-2	94 D
Lab Control Sample	KWG1005611-3	99

Surrogate Recovery Control Limits (%)

Sur1 = Decachlorobiphenyl 35-133

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Conestoga-Rovers & Associates, Incorporated
Project: 12th Street/056393-07-004
Sample Matrix: Soil

Service Request: K1005929
Date Extracted: 06/09/2010
Date Analyzed: 06/10/2010

Matrix Spike/Duplicate Matrix Spike Summary Polychlorinated Biphenyls (PCBs)

Sample Name: SO-056393-060610-RP-001 **Units:** ug/Kg
Lab Code: K1005929-001 **Basis:** Dry
Extraction Method: EPA 3550M **Level:** Low
Analysis Method: 8082 **Extraction Lot:** KWG1005611

Analyte Name	Sample Result	SO-056393-060610-RP-001			SO-056393-060610-RP-001			%Rec Limits	RPD	RPD Limit			
		MS			DMS								
		KWG1005611-1			KWG1005611-2								
		Matrix Spike			Duplicate Matrix Spike								
Aroclor 1016	ND	7480	472	1584 *	5520	470	1174 *	27-174	30	40			
Aroclor 1260	ND	1590	472	336 *	1090	470	232 *	20-185	37	40			

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004
Sample Matrix: Soil

Service Request: K1005929
Date Extracted: 06/09/2010
Date Analyzed: 06/09/2010

Lab Control Spike Summary
Polychlorinated Biphenyls (PCBs)

Extraction Method: EPA 3550M
Analysis Method: 8082

Units: ug/Kg
Basis: Dry
Level: Low

Extraction Lot: KWG1005611

Lab Control Sample

KWG1005611-3

Lab Control Spike

Analyte Name	Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
Aroclor 1016	173	200	87	48-121
Aroclor 1260	199	200	100	53-129

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004
Sample Matrix: Soil

Service Request: K1005929
Date Extracted: 06/09/2010
Date Analyzed: 06/09/2010
Time Analyzed: 21:01

Method Blank Summary
Polychlorinated Biphenyls (PCBs)

Sample Name: Method Blank
Lab Code: KWG1005611-4
Extraction Method: EPA 3550M
Analysis Method: 8082

File ID: J:\GC09\DATA\060910A.B\0609F020.D
Instrument ID: GC09.i
Level: Low
Extraction Lot: KWG1005611

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1005611-3	J:\GC09\DATA\060910A.B\0609F021.D	06/09/10	21:27
SO-056393-060610-RP-001	K1005929-001	J:\GC09\DATA\060910A.B\0609FD28.D	06/10/10	00:30
SO-056393-060610-RP-001MS	KWG1005611-1	J:\GC09\DATA\060910A.B\0609FD29.D	06/10/10	00:56
SO-056393-060610-RP-001DMS	KWG1005611-2	J:\GC09\DATA\060910A.B\0609FD30.D	06/10/10	01:22

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004
Sample Matrix: Soil

Service Request: K1005929
Date Extracted: 06/09/2010
Date Analyzed: 06/09/2010
Time Analyzed: 21:27

Lab Control Sample Summary
Polychlorinated Biphenyls (PCBs)

Sample Name:	Lab Control Sample	File ID:	J:\GC09\DATA\060910A.B\0609F021.D
Lab Code:	KWG1005611-3	Instrument ID:	GC09.i
Extraction Method:	EPA 3550M	Level:	Low
Analysis Method:	8082	Extraction Lot:	KWG1005611

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG1005611-4	J:\GC09\DATA\060910A.B\0609F020.D	06/09/10	21:01
SO-056393-060610-RP-001	K1005929-001	J:\GC09\DATA\060910A.B\0609FD28.D	06/10/10	00:30
SO-056393-060610-RP-001MS	KWG1005611-1	J:\GC09\DATA\060910A.B\0609FD29.D	06/10/10	00:56
SO-056393-060610-RP-001DMS	KWG1005611-2	J:\GC09\DATA\060910A.B\0609FD30.D	06/10/10	01:22

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004
Sample Matrix: Soil

Service Request: K1005929
Date Collected: 06/04/2010
Date Received: 06/09/2010

Polychlorinated Biphenyls (PCBs)

Sample Name:	SO-056393-060610-RP-001	Units:	ug/Kg
Lab Code:	K1005929-001	Basis:	Dry
Extraction Method:	EPA 3550M	Level:	Low
Analysis Method:	8082		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND U	240	31	10	06/09/10	06/10/10	KWG1005611	
Aroclor 1221	ND U	480	31	10	06/09/10	06/10/10	KWG1005611	
Aroclor 1232	ND U	240	31	10	06/09/10	06/10/10	KWG1005611	
Aroclor 1242	ND U	240	31	10	06/09/10	06/10/10	KWG1005611	
Aroclor 1248	6800 D	240	31	10	06/09/10	06/10/10	KWG1005611	
Aroclor 1254	ND U	240	31	10	06/09/10	06/10/10	KWG1005611	
Aroclor 1260	ND U	240	31	10	06/09/10	06/10/10	KWG1005611	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	94	35-133	06/10/10	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004
Sample Matrix: Soil

Service Request: K1005929
Date Collected: NA
Date Received: NA

Polychlorinated Biphenyls (PCBs)

Sample Name:	Method Blank	Units:	ug/Kg
Lab Code:	KWG1005611-4	Basis:	Dry
Extraction Method:	EPA 3550M	Level:	Low
Analysis Method:	8082		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND U	5.0	1.3	1	06/09/10	06/09/10	KWG1005611	
Aroclor 1221	ND U	10	1.3	1	06/09/10	06/09/10	KWG1005611	
Aroclor 1232	ND U	5.0	1.3	1	06/09/10	06/09/10	KWG1005611	
Aroclor 1242	ND U	5.0	1.3	1	06/09/10	06/09/10	KWG1005611	
Aroclor 1248	ND U	5.0	1.3	1	06/09/10	06/09/10	KWG1005611	
Aroclor 1254	ND U	5.0	1.3	1	06/09/10	06/09/10	KWG1005611	
Aroclor 1260	ND U	5.0	1.3	1	06/09/10	06/09/10	KWG1005611	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	103	35-133	06/09/10	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004
Sample Matrix: Soil

Service Request: K1005929
Date Collected: 06/04/2010
Date Received: 06/09/2010

Polychlorinated Biphenyls (PCBs)

Sample Name:	SO-056393-060610-RP-001MS	Units: ug/Kg
Lab Code:	KWG1005611-1	Basis: Dry
Extraction Method:	EPA 3550M	Level: Low
Analysis Method:	8082	

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	7480 D	240	31	10	06/09/10	06/10/10	KWG1005611	
Aroclor 1221	ND U	480	31	10	06/09/10	06/10/10	KWG1005611	
Aroclor 1232	ND U	240	31	10	06/09/10	06/10/10	KWG1005611	
Aroclor 1242	ND U	240	31	10	06/09/10	06/10/10	KWG1005611	
Aroclor 1248	7800 D	240	31	10	06/09/10	06/10/10	KWG1005611	
Aroclor 1254	ND U	240	31	10	06/09/10	06/10/10	KWG1005611	
Aroclor 1260	1590 D	240	31	10	06/09/10	06/10/10	KWG1005611	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	101	35-133	06/10/10	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004
Sample Matrix: Soil

Service Request: K1005929
Date Collected: 06/04/2010
Date Received: 06/09/2010

Polychlorinated Biphenyls (PCBs)

Sample Name:	SO-056393-060610-RP-001DMS	Units: ug/Kg
Lab Code:	KWG1005611-2	Basis: Dry
Extraction Method:	EPA 3550M	Level: Low
Analysis Method:	8082	

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	5520 D	240	31	10	06/09/10	06/10/10	KWG1005611	
Aroclor 1221	ND U	480	31	10	06/09/10	06/10/10	KWG1005611	
Aroclor 1232	ND U	240	31	10	06/09/10	06/10/10	KWG1005611	
Aroclor 1242	ND U	240	31	10	06/09/10	06/10/10	KWG1005611	
Aroclor 1248	5200 D	240	31	10	06/09/10	06/10/10	KWG1005611	
Aroclor 1254	ND U	240	31	10	06/09/10	06/10/10	KWG1005611	
Aroclor 1260	1090 D	240	31	10	06/09/10	06/10/10	KWG1005611	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	94	35-133	06/10/10	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004
Sample Matrix: Soil

Service Request: K1005929
Date Collected: NA
Date Received: NA

Polychlorinated Biphenyls (PCBs)

Sample Name:	Lab Control Sample	Units:	ug/Kg
Lab Code:	KWG1005611-3	Basis:	Dry
Extraction Method:	EPA 3550M	Level:	Low
Analysis Method:	8082		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	173	10	1.3	1	06/09/10	06/09/10	KWG1005611	
Aroclor 1221	ND U	20	1.3	1	06/09/10	06/09/10	KWG1005611	
Aroclor 1232	ND U	10	1.3	1	06/09/10	06/09/10	KWG1005611	
Aroclor 1242	ND U	10	1.3	1	06/09/10	06/09/10	KWG1005611	
Aroclor 1248	ND U	10	1.3	1	06/09/10	06/09/10	KWG1005611	
Aroclor 1254	ND U	10	1.3	1	06/09/10	06/09/10	KWG1005611	
Aroclor 1260	199	10	1.3	1	06/09/10	06/09/10	KWG1005611	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	99	35-133	06/09/10	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004

Service Request: K1005929
Calibration Date: 05/27/2010
Date Analyzed: 05/28/2010

Second Source Calibration Verification
Polychlorinated Biphenyls (PCBs)

Calibration Type:	External Standard	Calibration ID:	CAL9510	
Analysis Method:	8082	Units:	ng/mL	
File ID:	\ Cash1\Acquadata\GC09\data\052710A.B\0527F052.D \ Cash1\Acquadata\GC09\data\052710A.B\0527F053.D \ Cash1\Acquadata\GC09\data\052710A.B\0527F054.D \ Cash1\Acquadata\GC09\data\052710A.B\0527F055.D \ Cash1\Acquadata\GC09\data\052710A.B\0527F056.D \ Cash1\Acquadata\GC09\data\052710A.B\0527F057.D \ Cash1\Acquadata\GC09\data\052710A.B\0527F058.D \ Cash1\Acquadata\GC09\data\052710A.B\0527F059.D \ Cash1\Acquadata\GC09\data\052710A.B\0527F060.D		Column ID:	DB-35MS

Analyte Name	Expected	Result	Average	SSV	%D	%Drift	Criteria	Curve Fit
			RF	RF				
Aroclor 1016 {1}	1000	1100	142	160	13	NA	± 100 %	AverageRF
Aroclor 1016 {2}	1000	1200	286	334	17	NA	± 100 %	AverageRF
Aroclor 1016 {3}	1000	1100	243	257	6	NA	± 100 %	AverageRF
Aroclor 1016 {4}	1000	1100	207	224	8	NA	± 100 %	AverageRF
Aroclor 1016 {5}	1000	1300	154	198	29	NA	± 100 %	AverageRF
Aroclor 1016	1000	1100	NA	NA	NA	-14	± 15 %	NA
Aroclor 1260 {1}	1000	950	302	287	-5	NA	± 100 %	AverageRF
Aroclor 1260 {2}	1000	1000	370	377	2	NA	± 100 %	AverageRF
Aroclor 1260 {3}	1000	990	453	450	-1	NA	± 100 %	AverageRF
Aroclor 1260 {4}	1000	860	433	374	-14	NA	± 100 %	AverageRF
Aroclor 1260 {5}	1000	1200	571	671	18	NA	± 100 %	AverageRF
Aroclor 1260	1000	1000	NA	NA	NA	0	± 15 %	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004

Service Request: K1005929
Calibration Date: 05/27/2010
Date Analyzed: 05/28/2010

Second Source Calibration Verification
Polychlorinated Biphenyls (PCBs)

Calibration Type:	External Standard	Calibration ID:	CAL9510
Analysis Method:	8082	Units:	ng/mL
File ID:	\Cash1\Acquadata\GC09\data\052710A_r.b\0527R052.D \Cash1\Acquadata\GC09\data\052710A_r.b\0527R053.D \Cash1\Acquadata\GC09\data\052710A_r.b\0527R054.D \Cash1\Acquadata\GC09\data\052710A_r.b\0527R055.D \Cash1\Acquadata\GC09\data\052710A_r.b\0527R056.D \Cash1\Acquadata\GC09\data\052710A_r.b\0527R057.D \Cash1\Acquadata\GC09\data\052710A_r.b\0527R058.D \Cash1\Acquadata\GC09\data\052710A_r.b\0527R059.D \Cash1\Acquadata\GC09\data\052710A_r.b\0527R060.D	Column ID:	DB-XLB

Analyte Name	Expected	Result	Average	SSV	%D	%Drift	Criteria	Curve Fit
			RF	RF				
Aroclor 1016 {1}	1000	1100	183	195	6	NA	± 100 %	AverageRF
Aroclor 1016 {2}	1000	1000	323	326	1	NA	± 100 %	AverageRF
Aroclor 1016 {3}	1000	1100	158	181	15	NA	± 100 %	AverageRF
Aroclor 1016 {4}	1000	1000	131	137	5	NA	± 100 %	AverageRF
Aroclor 1016 {5}	1000	1100	147	163	10	NA	± 100 %	AverageRF
Aroclor 1016	1000	1100	NA	NA	NA	-7	± 15 %	NA
Aroclor 1260 {1}	1000	1000	277	280	1	NA	± 100 %	AverageRF
Aroclor 1260 {2}	1000	980	297	292	-2	NA	± 100 %	AverageRF
Aroclor 1260 {3}	1000	910	372	339	-9	NA	± 100 %	AverageRF
Aroclor 1260 {4}	1000	1200	235	282	20	NA	± 100 %	AverageRF
Aroclor 1260 {5}	1000	1200	440	506	15	NA	± 100 %	AverageRF
Aroclor 1260	1000	1100	NA	NA	NA	-5	± 15 %	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004

Service Request: K1005929
Date Analyzed: 06/09/2010

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type:	External Standard	Calibration Date:	05/27/2010
Analysis Method:	8082	Calibration ID:	CAL9510
File ID:	\\CASH1\ACQUDATA\GC09\DATA\060910A.B\0609F017.D	Analysis Lot:	KWG1005632
		Units:	ng/mL
		Column ID:	DB-35MS

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	100	96	5900	5670	-4	NA	± 15 %	AverageRF
Aroclor 1016 {1}	1000	1000	142	143	1	NA	± 100 %	AverageRF
Aroclor 1016 {2}	1000	1100	286	301	5	NA	± 100 %	AverageRF
Aroclor 1016 {3}	1000	990	243	242	-1	NA	± 100 %	AverageRF
Aroclor 1016 {4}	1000	960	207	200	-4	NA	± 100 %	AverageRF
Aroclor 1016 {5}	1000	1000	154	157	2	NA	± 100 %	AverageRF
Aroclor 1016	1000	1000	NA	NA	NA	1	± 15 %	NA
Aroclor 1260 {1}	1000	920	302	277	-8	NA	± 100 %	AverageRF
Aroclor 1260 {2}	1000	920	370	339	-8	NA	± 100 %	AverageRF
Aroclor 1260 {3}	1000	920	453	416	-8	NA	± 100 %	AverageRF
Aroclor 1260 {4}	1000	960	433	417	-4	NA	± 100 %	AverageRF
Aroclor 1260 {5}	1000	970	571	557	-3	NA	± 100 %	AverageRF
Aroclor 1260	1000	940	NA	NA	NA	-6	± 15 %	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004

Service Request: K1005929
Date Analyzed: 06/09/2010

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type:	External Standard	Calibration Date:	05/27/2010
Analysis Method:	8082	Calibration ID:	CAL9510
File ID:	\ CASH1\ACQUDATA\GC09\DATA\060910A_R.B\0609R017.D		Analysis Lot: KWG1005632
			Units: ng/mL
			Column ID: DB-XLB

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	100	98	5130	5060	-2	NA	± 15 %	AverageRF
Aroclor 1016 {1}	1000	960	183	177	-4	NA	± 100 %	AverageRF
Aroclor 1016 {2}	1000	950	323	307	-5	NA	± 100 %	AverageRF
Aroclor 1016 {3}	1000	1100	158	168	6	NA	± 100 %	AverageRF
Aroclor 1016 {4}	1000	1000	131	134	2	NA	± 100 %	AverageRF
Aroclor 1016 {5}	1000	1000	147	150	2	NA	± 100 %	AverageRF
Aroclor 1016	1000	1000	NA	NA	NA	0	± 15 %	NA
Aroclor 1260 {1}	1000	960	277	267	-4	NA	± 100 %	AverageRF
Aroclor 1260 {2}	1000	950	297	281	-5	NA	± 100 %	AverageRF
Aroclor 1260 {3}	1000	970	372	360	-3	NA	± 100 %	AverageRF
Aroclor 1260 {4}	1000	1000	235	243	3	NA	± 100 %	AverageRF
Aroclor 1260 {5}	1000	980	440	429	-2	NA	± 100 %	AverageRF
Aroclor 1260	1000	980	NA	NA	NA	-2	± 15 %	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004

Service Request: K1005929
Date Analyzed: 06/10/2010

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type:	External Standard	Calibration Date:	05/27/2010
Analysis Method:	8082	Calibration ID:	CAL9510
File ID:	\ CASH1\ACQUDATA\GC09\DATA\060910A.B\0609F027.D		Analysis Lot: KWG1005632
			Units: ng/mL
			Column ID: DB-35MS

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	100	94	5900	5530	-6	NA	± 15 %	AverageRF
Aroclor 1016 {1}	1000	950	142	134	-5	NA	± 100 %	AverageRF
Aroclor 1016 {2}	1000	980	286	281	-2	NA	± 100 %	AverageRF
Aroclor 1016 {3}	1000	890	243	216	-11	NA	± 100 %	AverageRF
Aroclor 1016 {4}	1000	910	207	189	-9	NA	± 100 %	AverageRF
Aroclor 1016 {5}	1000	970	154	150	-3	NA	± 100 %	AverageRF
Aroclor 1016	1000	940	NA	NA	NA	-6	± 15 %	NA
Aroclor 1260 {1}	1000	870	302	262	-13	NA	± 100 %	AverageRF
Aroclor 1260 {2}	1000	860	370	317	-14	NA	± 100 %	AverageRF
Aroclor 1260 {3}	1000	860	453	390	-14	NA	± 100 %	AverageRF
Aroclor 1260 {4}	1000	920	433	400	-8	NA	± 100 %	AverageRF
Aroclor 1260 {5}	1000	950	571	543	-5	NA	± 100 %	AverageRF
Aroclor 1260	1000	890	NA	NA	NA	-11	± 15 %	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004

Service Request: K1005929
Date Analyzed: 06/10/2010

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type:	External Standard	Calibration Date:	05/27/2010
Analysis Method:	8082	Calibration ID:	CAL9510
File ID:	\\CASH1\ACQUDATA\GC09\DATA\060910A_R.B\0609R027.D	Analysis Lot:	KWG1005632
		Units:	ng/mL
		Column ID:	DB-XLB

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	100	98	5130	5050	-2	NA	± 15 %	AverageRF
Aroclor 1016 {1}	1000	950	183	173	-5	NA	± 100 %	AverageRF
Aroclor 1016 {2}	1000	920	323	299	-8	NA	± 100 %	AverageRF
Aroclor 1016 {3}	1000	1000	158	163	3	NA	± 100 %	AverageRF
Aroclor 1016 {4}	1000	980	131	128	-2	NA	± 100 %	AverageRF
Aroclor 1016 {5}	1000	980	147	145	-2	NA	± 100 %	AverageRF
Aroclor 1016	1000	970	NA	NA	NA	-3	± 15 %	NA
Aroclor 1260 {1}	1000	940	277	262	-6	NA	± 100 %	AverageRF
Aroclor 1260 {2}	1000	930	297	276	-7	NA	± 100 %	AverageRF
Aroclor 1260 {3}	1000	970	372	361	-3	NA	± 100 %	AverageRF
Aroclor 1260 {4}	1000	1000	235	242	3	NA	± 100 %	AverageRF
Aroclor 1260 {5}	1000	980	440	431	-2	NA	± 100 %	AverageRF
Aroclor 1260	1000	970	NA	NA	NA	-3	± 15 %	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004

Service Request: K1005929
Date Analyzed: 06/10/2010

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type:	External Standard	Calibration Date:	05/27/2010
Analysis Method:	8082	Calibration ID:	CAL9510
File ID:	\\CASH1\ACQUDATA\GC09\DATA\060910A.B\0609FD33.D	Analysis Lot:	KWG1005632
		Units:	ng/mL
		Column ID:	DB-35MS

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	100	96	5900	5700	-4	NA	± 15 %	AverageRF
Aroclor 1016 {1}	1000	970	142	138	-3	NA	± 100 %	AverageRF
Aroclor 1016 {2}	1000	1000	286	295	3	NA	± 100 %	AverageRF
Aroclor 1016 {3}	1000	960	243	233	-4	NA	± 100 %	AverageRF
Aroclor 1016 {4}	1000	960	207	199	-4	NA	± 100 %	AverageRF
Aroclor 1016 {5}	1000	1000	154	158	2	NA	± 100 %	AverageRF
Aroclor 1016	1000	990	NA	NA	NA	-1	± 15 %	NA
Aroclor 1260 {1}	1000	910	302	274	-9	NA	± 100 %	AverageRF
Aroclor 1260 {2}	1000	900	370	334	-10	NA	± 100 %	AverageRF
Aroclor 1260 {3}	1000	910	453	412	-9	NA	± 100 %	AverageRF
Aroclor 1260 {4}	1000	980	433	423	-2	NA	± 100 %	AverageRF
Aroclor 1260 {5}	1000	990	571	565	-1	NA	± 100 %	AverageRF
Aroclor 1260	1000	940	NA	NA	NA	-6	± 15 %	NA

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Conestoga-Rovers & Associates, Incorpora
Project: 12th Street/056393-07-004

Service Request: K1005929
Date Analyzed: 06/10/2010

Continuing Calibration Verification Summary
Polychlorinated Biphenyls (PCBs)

Calibration Type:	External Standard	Calibration Date:	05/27/2010
Analysis Method:	8082	Calibration ID:	CAL9510
File ID:	\\CASH1\ACQUDATA\GC09\DATA\060910A_R.B\0609RD33.D	Analysis Lot:	KWG1005632
		Units:	ng/mL
		Column ID:	DB-XLB

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Decachlorobiphenyl	100	100	5130	5180	1	NA	± 15 %	AverageRF
Aroclor 1016 {1}	1000	970	183	177	-3	NA	± 100 %	AverageRF
Aroclor 1016 {2}	1000	950	323	306	-5	NA	± 100 %	AverageRF
Aroclor 1016 {3}	1000	1100	158	167	6	NA	± 100 %	AverageRF
Aroclor 1016 {4}	1000	1000	131	133	2	NA	± 100 %	AverageRF
Aroclor 1016 {5}	1000	1000	147	148	0	NA	± 100 %	AverageRF
Aroclor 1016	1000	1000	NA	NA	NA	0	± 15 %	NA
Aroclor 1260 {1}	1000	970	277	268	-3	NA	± 100 %	AverageRF
Aroclor 1260 {2}	1000	970	297	287	-3	NA	± 100 %	AverageRF
Aroclor 1260 {3}	1000	990	372	370	-1	NA	± 100 %	AverageRF
Aroclor 1260 {4}	1000	1100	235	250	6	NA	± 100 %	AverageRF
Aroclor 1260 {5}	1000	1000	440	442	1	NA	± 100 %	AverageRF
Aroclor 1260	1000	1000	NA	NA	NA	0	± 15 %	NA

Results flagged with an asterisk (*) indicate values outside control criteria.